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**Grundgestalt, developing variation and motivic processes in the music of Arnold Schoenberg : an analytical study of the string quartets.**

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*Grundgestalt, Developing Variation, and Motivic Processes*  
in the Music of Arnold Schoenberg:  
An Analytical Study of the String Quartets.

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Submitted for the degree of  
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*Grundgestalt, Developing Variation*, and Motivic Processes in the  
Music of Arnold Schoenberg: An Analytical Study of the String Quartets.

ABSTRACT

I have not discontinued composing in the same style and in the same way as at the very beginning. The difference is only that I do it better now than before; it is more concentrated, more mature.<sup>1</sup>

Many of Arnold Schoenberg's individual works have been the subject of scholarly scrutiny, as have the periods of transition from tonality through extended tonality to 'atonality', and from 'atonality' to the music of the twelve-note period. Academic research has been largely pre-occupied either with comprehending the radical changes that took place in Schoenberg's music, or with exploring the nature of the transitional music that led to them. Few commentators, if any, have sought to expose the processes by which one composer could produce such a stylistically diverse musical literature and yet stress the continuity in his compositional development.

The contribution of this study to the understanding of the 'new' is woven into the perception of the 'old' and the 'new' from an hitherto unconsidered dimension, stalwartly maintained by Schoenberg as fundamental to the very fabric of composition, namely the processes and progressions of the motive, or more specifically, the *Urmotive* of the *Grundgestalt*. The study investigates Schoenberg's concepts of *Grundgestalt* and *Developing Variation*. A theoretical framework for the evaluation of the motivic processes that generate the fabric of the musical material is constructed and applied to his Four String Quartets - a genre which encapsulates his musical literature - in order to demonstrate Schoenberg's consistent adherence to his beliefs.

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<sup>1</sup> Schoenberg, *Style and Idea*, Ed. L. Stein (London 1975), p.30

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Finally, I should like to pay particular tribute to my wife, Catherine, whose constant encouragement and selfless dedication have made my work both bearable and possible.

## PREFACE

Whilst a study of this kind could have centred on any works representative of Schoenberg's varying styles, the four String Quartets Opp.7, 10, 30, and 37 have been chosen because they represent in one genre the mature tonal synthesis of Brahms and Wagner, the beginnings of Schoenberg's two periods of stylistic development, and the mature twelve-tone style itself.

### Terminology

Pitch levels are indicated by a combination of upper and lower case letters and super- and subscript dashes; e.g.:

c-b = the range from middle C to the B above

c'-b' = the range one octave above the previous

C-B = the range one octave below middle C

C<sub>1</sub>-B<sub>1</sub> = the range one octave below the previous.

General pitch references will appear in upper case letters.

Bar numbers in Op.7 Quartet are taken from the Verlag Dreililien score which includes rehearsal letters in its bar numbering. Such references show the letter in bold type with the numeral immediately after in plain text.

Bar numbers in the Opp.10 and 30 Quartets are taken from the Philharmonia scores, nos. 229 and 228 (respectively).

Bars in the Op.37 Quartet are numbered sequentially throughout the composition, i.e., the numbering of the bars in the second movement begins at bar 285 rather than returning to 1. These are taken from the Schirmer edition score.

Each score has been carefully cross-referenced with the scores which form part of Schoenberg's *Sämtliche Werke*, the critical edition by Christian



Schmidt, but bar numbering from the editions mentioned above is retained, due to their wider availability.

References to a specific beat in a bar appear as a numeral separated from the bar number by an oblique line, e.g., 8/4 = fourth beat of bar eight.

Row names and transpositions in Op.30 give P<sub>0</sub> (I<sub>0</sub>, R<sub>0</sub>, RI<sub>0</sub>) as the forms beginning on G, P<sub>1</sub> etc. beginning on G#, and so forth.

Row names and transpositions in Op.37 give P<sub>0</sub> (I<sub>0</sub>, R<sub>0</sub>, RI<sub>0</sub>) as the forms beginning on D, P<sub>1</sub> etc. beginning on Eb, and so forth.

Conventional reference is made to intervallic relationships, e.g., major 3rd. Where an interval class is under discussion the abbreviation 'ic' is adopted.

Analytical examples will be devoid of dynamic markings, and also time and key signatures where they are inappropriate. Annotated examples of direct quotes from the score will contain time and key signatures, and phrase marks where it is felt that they are necessary and do not clutter the analytical information.

In the Thematic Charts (back insert) and Motivic Progression tables (in Chapter 4), *Grundgestalt Urmotive* are shown in bold type; thematic motives are shown in plain text, underlined; further derived motive-forms are shown in plain text alone. Particular reference should be made to the Thematic Charts with respect to musical representations of themes referred to in the text of Chapters 4 and 5.

Motivic progressions of Repetition, Fixed, Developed, and Transformation are abbreviated to "Rep" or "R", "Fix" or "F:", "Dev" or "D:", and "Trans" respectively.

Instruments are mostly referred to by the following abbreviations:

vln 1; vln 2; vla; cello.

Due to the complex theoretical and analytical issues raised in this inquiry, I have deliberately excluded detailed reference to unpublished materials, sketches, manuscripts, except where these are discussed in published articles.

The analytical perspective of the inquiry focuses on the need for a flexible system which is both capable of demonstrating the motivic relationships within a work and applicable to the diverse styles of Schoenberg's music. The system devised presents a network of potential relationships, whose application will enable the analyst to form a clearer perception of motivic development in tonal and post-tonal music.

The analyses themselves make no claim to reproduce Schoenberg's compositional process, but rather to apply the technical procedures developed in the early stages of the dissertation.



## CHAPTER ONE: INTRODUCTION

### 1.1 Schoenberg's Compositional Process

My *Verklärte Nacht*, written before the beginning of this century - hence a work of my first period, has made me a kind of reputation. From it I can enjoy (even among opponents) some appreciation which the works of my later periods would not have procured for me so soon. This work has been heard, especially in its version for orchestra, a great many times. But certainly nobody has heard it as often as I have heard this complaint: 'If only he had continued to compose in this style!'<sup>1</sup>

Writing in 1937, Arnold Schoenberg's response to this 'complaint' is to deny any *change* in style. Rather, he intimates that the development of his compositional technique was a continuous evolution of the musical tradition within which he had grown up. Yet this evolution was such that he 'found himself moving away from the traditional tonal techniques he had used so powerfully and imaginatively in works like *Verklärte Nacht*, *Pelleas und Melisande*, the First String Quartet and the First Chamber Symphony, composed between 1899 and 1908.'<sup>2</sup> The 'movement away' was to culminate in the development of the twelve-tone method which formed the basis for the majority of Schoenberg's compositions after the early 1920s.

Many of Schoenberg's works have been the subject of scholarly scrutiny, as have the periods of transition from tonality through extended tonality to 'atonality', and from 'atonality' to the music of the twelve-tone period. Academic research has been largely pre-occupied either with comprehending the radical changes that took place in Schoenberg's music, or with exploring the nature of the transitional music that led to them.

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<sup>1</sup> A. Schoenberg, *Style and Idea*, ed. L. Stein (London, 1975), p.30.

<sup>2</sup> A. Whittall, *Music Since the First World War*, (London, 1977), p.120.

Few commentators, if any, have sought to expose the processes by which one composer could produce such a stylistically diverse musical literature and yet stress the continuity in his compositional development.

From 1908, the gradual abandonment of tonality by chromatic extension and ultimate saturation was the only logical harmonic direction in which Schoenberg felt his music could go if it were to continue to develop. His concern with coherence within a work - in the absence of a unifying force such as tonality - is evident in his writings, specifically in his essay 'Problems of Harmony':

It is evident that abandoning tonality can be contemplated only if other satisfactory means for coherence and articulation present themselves. If, in other words, one could write a piece which does not use the advantages offered by tonality and yet unifies all elements so that their succession and relation are logically comprehensible, and which is articulated as our mental capacity requires, namely so that the parts unfold clearly and characteristically in related significance and function.<sup>3</sup>

Schoenberg goes on to say that the unity of a piece can be accomplished by ensuring the coherence of the motives, or smallest parts, of a work:

Everyone with a knowledge of music is aware that each piece has certain parts, the smallest, which always recur: the so-called motives. Though it is not always possible or easy to follow the function of these motives in the most modern compositions, there is no doubt that it can almost always be done in the classics. The meaning of the elaboration of motives can only be uniformity (the more of an art-form a composition is, the more far-reaching the application): it is always the same material which is being handled; every form no matter where or how it appears may be traced back to these

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<sup>3</sup> Schoenberg, op. cit., p.279.



motives, the same idea is at the base of everything. Hence we shall find in the classics, besides the unity of tonal relations, that at least the same end of coherence is attained with at least the same amount of carefulness, through the unity of configurations, the unity of ideas.<sup>4</sup>

Tonality in Schoenberg's view is, therefore, only one means by which everything within a work can be related concentrically to a starting point. The use of a tonal centre, however, gives no guarantee that a work will be coherent and unified. The logical coherence of a work relies much more heavily on the use of the motive, or, more precisely, the *Grundgestalt* (basic shape): the fundamental representation of the musical idea.<sup>5</sup> Whether the idea occurs in a tonal context or otherwise, the unity of the work still exists, being articulated by the processes to which the motives of the *Grundgestalt* are subjected. Schoenberg's 'unity of configurations' is created by the consistent relationship that exists between the motive/motive-forms of his works and the 'same idea which is at the base of everything', namely the *Grundgestalt*. Motives of the *Grundgestalt* unfold from it to produce a musical discourse. In order to avoid monotonous repetition, yet to retain a relationship with the source (or *Grundgestalt*), the motives are subjected to *developing variation*.<sup>6</sup> These concepts lie at the heart of Schoenberg's compositional processes and it is the aim of this inquiry to uncover the motivic processes of *developing variation* in works of his that fall into the three generally accepted stylistic periods of tonal, atonal and twelve-tone music.

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<sup>4</sup> Ibid., p.279.

<sup>5</sup> A full discussion of this concept can be found in Chapter Two, pp.22-39.

<sup>6</sup> For the purposes of this study, *developing variation* will be interpreted as the continuous modifications of the elements of a *Grundgestalt's Urmotive* - namely, contour, rhythm, intervallic relationships - that generate further motive-forms, creating a musical discourse. For a fuller explanation of, and background to, *developing variation*, see W. Frisch, *Brahms and the Principle of Developing Variation*, (Berkeley, 1984).

## 1.2 Analytical studies

### 1.2.1 Historical Perspective: Réti and his followers

One could scarcely begin to study motivic and thematic transformations and processes in music without attending to the ideas and theories (if partial and inconclusive) of Rudolph Réti.

No real attempt has ever been made to comprehend in a systematic analysis the working of this most essential process in musical composition.<sup>7</sup>

Thus states Réti at the beginning of his publication *The Thematic Process in Music*. His work has been rejected and condemned by many 'for revealing no principles - it is widely adduced to epitomize the perils of lack of method.'<sup>8</sup> Yet Réti does what he says he has set out to do, which is 'to lay bare a principle: to give a description, or at least a first outline, of the thematic process in musical composition.'<sup>9</sup>

Unfortunately for Réti, his constant use of superfluous and sensationalist adjectives in an otherwise somewhat prosaic text reinforces the rather derogatory view of his work. In particular, the discriminatory nature of note selection in his analyses has fuelled the common opinion of his 'lack of method'. To be fair, Jonathan Dunsby and Arnold Whittall (quoted above) balance their comments on Réti (and to an extent defend his work) by explaining that Réti regarded his own work as primitive, and by pointing out 'the [high] degree of perception in his illustrations, which are not only acute, but also extensive' as well as commenting on Réti's 'alarming

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<sup>7</sup> R. Réti, *The Thematic Process in Music*, (New York, 1962), p.4.

<sup>8</sup> J. Dunsby and A. Whittall, *Music Analysis in Theory and Practice*, (London, 1988), p.89.

<sup>9</sup> Réti, op. cit., p.6.



freedom in determining which notes of a theme represent an underlying motive.<sup>10</sup>

Other commentators such as Keller and Walker<sup>11</sup> (a pupil of Keller) make attempts to continue Réti's ideas and expound their own theories regarding thematic unity and the idea of '*latent* basic motives' as the 'unitive forces behind *manifest* music'<sup>12</sup> (Keller's italics). Walker tends to enlarge on Keller's views, particularly with regard to what real analysis is, as opposed to mere description. Neither makes any attempt to categorise his theoretical observations but simply seeks to expose the underlying unity within the works chosen for analysis. It would have been difficult for Keller to do such a thing since 'with the space at my disposal, my analytical observations cannot hope to be complete.'<sup>13</sup> In his analyses of Mozart's chamber music, Keller does provide some convincing examples, as well as some unconvincing ones. Walker, on the other hand, sets out in his preface consciously to re-assert some of Réti's ideas but stresses to the would-be sceptic that 'the unity between the themes of a single work stretches over all elements'<sup>14</sup>, by which one supposes him to mean harmonic and rhythmic, as well as melodic. He is not as thoroughly systematic as Réti, preferring to expound basic principles (mostly Keller's). Yet he does take Réti's work a few steps further, by discussion of harmonic and rhythmic unity as well as Keller's 'principle of reversed and postponed antecedents and consequents'. He does not attempt to forge his discoveries into a 'theory of thematic unity'. It could be said, however, that he and Keller

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<sup>10</sup> Dunsby and Whittall, op. cit., p.91.

<sup>11</sup> H. Keller, 'The Chamber Music', from *The Mozart Companion*, ed. Robbins Landon and Mitchell (London, 1965) pp.90-137; A Walker, *A Study in Musical Analysis*, (London, 1962).

<sup>12</sup> Keller, op. cit., p.91.

<sup>13</sup> Ibid.

<sup>14</sup> Walker, op. cit., preface.



stand alongside R  ti in laying the foundations for the possibility of a future theory, either of thematic unity (or affinity) or motivic process (which structures such thematic material) or both.

When R  ti speaks of 'motivic' and 'thematic' affinity he makes the purpose of his inquiry quite clear:

Interconnections shown to be at the basis of the architectural plans in the works analyzed so far, almost invariably proved to be interconnections centered not merely on affinities between small motivic particles *but on affinities between full "themes"* [R  ti's emphasis] - that is, shapes of considerable length and weight forming in themselves complete musical statements. That our presentation is mainly centered on thematic rather than on motivic connection is one of the fundamentals of this whole inquiry.<sup>15</sup>

R  ti, Keller and Walker, whilst exploring and often demonstrating the 'background unity' of the 'foreground contrasts', nevertheless avoid producing a general theory of thematic affinity, perhaps because there are an infinite number of possible themes and an unlimited number of possibilities of transformation. R  ti's statement is not convincing in the respect that his analyses show the smaller, motivic connections *often re-grouped* to form new themes which then exhibit thematic affinities. The analyses that follow his statement, however, (particularly the Debussy Prelude *La Cath  drale engloutie*) provide evidence only that the motives *do not* re-group, or alter to any great extent.

That these writers avoid producing a general theory of thematic affinity is perhaps pardonable. However, the reason one might come away from

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<sup>15</sup> R  ti, op. cit., p.193.

these writers' texts with the feeling of deficiency is due to their concentration upon too wide a premise. Undoubtedly their observations prove to some extent the existence of underlying thematic unity, but failure to acknowledge the role which the motive plays in their analyses and conclusions is their stumbling block. Whilst there may be 'an infinite number of possible themes', the number of different motives used to build those themes need not be infinite at all: it is possible to 're-group' the same motives to form different shapes, which is what leads to thematic affinity. Whether there exist any general rules that can be applied to motivic manipulation on a local and more extended scale remains an unanswered question, and a vital one to tackle, it seems to me, if an attempt is made to establish a 'theory of thematic affinity'.

In short, the motives that combine to build a theme, basic shape or *Grundgestalt* undergo processes that give rise to thematic unity and structural consistency, and it is through systematic analysis of these procedures that a theory might be constructed. Such a theory would attempt that which only Réti set out to do, namely, to provide a standardised theory relating to thematic unity. This his successors avoided, since their work, though acknowledging Réti's ideas, does not profess to re-organise and systematise Réti's but appears as branches from his standpoint.

### 1.2.2 More Recent Analytical Studies

Two writers who concern themselves with the *Grundgestalt* concept and musical structure are Walter Frisch and David Epstein.<sup>16</sup> Both writers

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<sup>16</sup> D. Epstein, *Beyond Orpheus*, (Cambridge, Mass., 1979); W. Frisch, *Brahms and the Principle of Developing Variation*, (Berkeley, 1984).



acknowledge their debt to Réti for 'initially exploring a new terrain',<sup>17</sup> at the same time expressing their mutual disappointment at 'the arbitrariness of Réti's pitch selection'<sup>18</sup> and 'almost total absence of methodical proof'.<sup>19</sup>

Both Frisch's book *Brahms and the Principle of Developing Variation* and Epstein's ideas as exemplified in his 'study of musical structures' - *Beyond Orpheus* - set out elements of Schoenberg's musical thought and the musical tradition upon which he based his compositional philosophy. The angle of perception of the two studies differs substantially, as does the subject matter, structure and layout of each: Frisch seeks to show how Brahms uses the technique (or techniques) of *developing variation* (a term coined by Schoenberg) as an integral part of his compositional process. The study traces the evolution of the processes of *developing variation* chronologically from its early seeds to maturity, concentrating on a particular genre in each main period. In this way, Frisch unveils the techniques piece by piece (quite literally) culminating in the Op.121 song "O Tod". His epilogue - a preliminary investigation of the same techniques in Schoenberg's early works 1892 - 1905 - has been recently expanded into a publication entitled *The Early Works of Arnold Schoenberg 1893 - 1908*. We shall return to this work, and Frisch's epilogue, later in this essay.

Frisch's opening chapter expounds the notion of *developing variation* from an historical-analytical perspective, concluding that earlier commentators on *Grundgestalt*, *developing variation*, and other motivic theories were, to a large extent, too selective and concerned with thematic shapes and development to the exclusion of other musical structural domains. Such a view is also taken by David Epstein who, writing earlier than Frisch, states

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<sup>17</sup> Epstein, op. cit., p.10; Frisch, op. cit., p.22.

<sup>18</sup> Frisch, op. cit., p.23.

<sup>19</sup> Epstein, op. cit., p.10.

that 'structural growth in music is more complex than can be sustained by purely "thematic" development. In other words, it is multi-dimensional growth. Thus analytical procedures that concern themselves primarily with theme - even with basic shape as theme - fail to touch other areas where structure may be deliberate, unique, intrinsic to a particular work, for example, harmony, tonal relations, duration, phrase, register.'<sup>20</sup> Epstein's study concentrates on the various 'domains' mentioned as well as their interaction to form a unified entity.

Both Frisch and Epstein explore (and broaden) the issues raised by earlier 'myopic' analysts, and to a certain extent each does so convincingly. Notwithstanding the different perspectives from which each is working, there are many points at which the studies intersect. Epstein begins his study with 'the concept of shape' and 'Schoenberg's *Grundgestalt*' exploring the idea that the *Grundgestalt* has a more far-reaching effect than simply that of pitch-oriented melodic shape. He makes cursory mention of the 'companion process of "*developing variation*".'<sup>21</sup> Frisch takes the ideas several steps in a different direction, exposing *developing variation* as both the higher-level force connecting thematic ideas as well as demonstrating 'how his [Brahms'] themes unfold and succeed each other on a more local level.'<sup>22</sup>

Whilst both commentators acknowledge, validate, and broaden the ideas and concepts of Schoenberg, neither seeks here (due to the scope of his work) to explore how - or whether - what Schoenberg observed, wrote, and taught about the compositional process actually surfaces in his own music. Both studies focus on music in the German-Viennese tradition, a

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<sup>20</sup> Ibid., p.28.

<sup>21</sup> Ibid., p.210.

<sup>22</sup> Frisch, op. cit., p.165.



tradition to which Schoenberg felt he belonged, and one within which he always felt his music stood.

Frisch's preliminary remarks on some of Schoenberg's early works, that is, those falling in his first - or 'tonal' - period, pave the way for his later study and his final comment summarises his attitude towards Schoenberg's continuation of the Brahmsian tradition. He pays particular attention to the Op.7 Quartet's opening theme and demonstrates Schoenberg's adoption of Brahms' techniques<sup>23</sup> as well as quoting the famous Berg analysis.<sup>24</sup> Frisch concludes that Schoenberg's music to this point already embodies the compositional processes he [Schoenberg] so admired in Brahms, stating

'He would have been a pioneer if he had simply returned to Mozart,' Schoenberg said of Brahms. 'But he did not live on inherited fortune; he made one of his own.'<sup>(25)</sup> The latter statement could be applied to Schoenberg himself. For that is how a musical tradition is, or should be, perpetuated and continually revitalized. Powerful figures like Brahms and Schoenberg do not merely inherit a tradition. They labor to make it their own and thereby to create something new.<sup>26</sup>

Epstein, too, makes mention of Schoenberg's music with reference to rhythmic (rather than pitch-oriented) motives.<sup>27</sup> Their observations, important as they are, only scratch the surface, however, and beg the question: 'what about Schoenberg's music?'

Frisch's recent study of the early works of Schoenberg "concentrates on

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<sup>23</sup> Ibid., pp.163-169.

<sup>24</sup> A. Berg, 'Why is Schoenberg's Music so Difficult to Understand?', in W. Reich, *Alban Berg: A Critical Biography* (London, 1971), pp.189 - 204.

<sup>25</sup> Frisch's own footnote. See *Brahms and the Principle of Developing Variation*, p.210.

<sup>26</sup> Ibid., p.170.

<sup>27</sup> Epstein, op. cit., p.24.



those compositions that I believe are most important and interesting, and through which a development in Schoenberg's musical language can be traced."<sup>28</sup> The initial chapters outline the Brahmsian context (in particular, of course, Schoenberg's adoption of *developing variation* procedures) for Schoenberg's earliest works. The middle section of the book investigates Schoenberg's expansion of tonality and form through the early songs (Opp.2 & 3) to *Pelleas und Melisande*, Op.5. The final part of the study discusses the maturing of Schoenberg's tonal style from the Op.7 Quartet to the Op.10 Quartet. Subtitled 'A Direction Much More My Own', it is only in this section of the book that Frisch refers to the concept of *Grundgestalt*. The case in point is a section of the Op.7 Quartet, where, Frisch declares, Schoenberg's *Grundgestalt* for the transitional material from rehearsal letter A was the *later* Scherzo theme which appears at rehearsal letter E rather than the opening thematic statement of the work.<sup>29</sup> Frisch's survey of the sketch material indeed reveals Schoenberg's preoccupation with the generation of a link between the thematic material of the Scherzo and the transitional material (to the Secondary group of themes) that precedes it. However, whilst it is apparent that the final order of material in the first part of the Quartet is different from the order in which Schoenberg conceived it, Frisch neglects to point out that his (Schoenberg's) carefully worked out transitional theme demonstrates - in the finished product - the organic evolution of the Scherzo theme from the *Grundgestalt* as I interpret it, that is, the opening bars of the work. Frisch's commentary on the Op.7 and Op.10 Quartets will be further (and more appropriately) discussed in the detailed analyses of those Quartets in Chapter 4 of this study.

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<sup>28</sup> W. Frisch, *The Early Works of Arnold Schoenberg 1893 - 1908*, (Berkeley, 1993; London, 1994), p.xiv.

<sup>29</sup> *Ibid.*, pp.206 - 207.

### 1.2.3 Further Developments

Several writers have taken the concepts of *Grundgestalt* and *developing variation* further along the analytical and musico-historical path by relating these terms to music of the Second Viennese School composers themselves. The work of Severine Neff, Janet Schmalfeldt, and Jack Boss, which presents differing perspectives of those concepts in the music of Arnold Schoenberg and Alban Berg, is discussed in detail in Chapters Two and Three of this study.<sup>30</sup> Neff's work concentrates on Schoenberg's Op.7 Quartet, exposing how the first thirty bars of the Quartet relate to the opening motives of the *Grundgestalt*. Boss further decreases the span of music considered in his article, which examines the *developing variation* of a motive in one of Schoenberg's Op.22 Orchestral Songs, 'Seraphita', across no more than nine bars of music (bars 18 - 26). Janet Schmalfeldt, on the other hand, underlines the mutual inclusivity of the two concepts, and examines the role each plays in the construction of Alban Berg's Piano Sonata Op.1, working in detail on the exposition of the work. These writings bear direct relevance to this study's quest both for a fuller understanding of the concepts of *Grundgestalt*, *developing variation*, and motive, and also for an analytical method that serves to demonstrate and compare their integration across a broad span of Schoenberg's music, both in terms of length and style.

### 1.2.4 A Different Perspective

Two writers who use the term *developing variation* in the context of

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<sup>30</sup> S. Neff, 'Aspects of Grundgestalt in Schoenberg's First String Quartet, Op.7', *Theory and Practice* 9 (1984), pp.7-56; J. Schmalfeldt 'Berg's Path to Atonality: The Piano Sonata, Op.1' in *Alban Berg: Historical and Analytical Perspectives*, (Oxford, 1991), pp.79-109; J. Boss, 'Schoenberg's Radio Talk and Developing Variation in Atonal Music', *Music Theory Spectrum* (1993), pp.125ff.



Schoenberg's twelve-tone music are Ethan Haimo and Silvina Milstein.<sup>31</sup>

A concise summary of their differing views can be found in Milstein's review of Haimo's book, *Schoenberg's Serial Odyssey*, which - as its subtitle explains - discusses the evolution of Schoenberg's twelve-tone method.<sup>32</sup> Milstein concludes her article by suggesting that Haimo's view of the role of *developing variation* in the evolution of Schoenberg's music is unnecessarily limited to the isomorphic partitioning of set presentation inherent in his more mature twelve-tone style. Milstein's own thoughts on the subject of *developing variation* are expressed in her recent publication, *Arnold Schoenberg: notes, sets, forms*, (pp.108 - 111 and pp.173 - 185). She points out that

Even if, as Lewin and Babbitt have shown, Schoenberg's music exhibits a rich interaction between textural, rhythmic, motivic and registral factors, and the deployment of segmental association, an analysis of the music exclusively in terms of segmental invariants, while demonstrating the procedure, could not satisfactorily account for the reason behind the compositional deployment of one specific invariant segment at any particular point in the music. To restrict oneself to general principles is as far removed from reconstructing musical thought as is the enumeration of common triads or pivot-tones among tonal regions from an analysis of a tonal composition.

A more fruitful way to relate twelve-tone association and musical thought would be to involve Schoenberg's own notion of *developing variation*. Schoenberg viewed the twelve-tone method as a means of fortifying musical logic in the absence of tonality, and thought that 'meaningful advantage can be derived from this art of composition when it is based on

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<sup>31</sup> E. Haimo, *Schoenberg's Serial Odyssey: The Evolution of his Twelve-tone Method 1914 - 1928*, (Oxford, 1990); S. Milstein, *Arnold Schoenberg: notes, sets, forms*, (Cambridge, 1991).

<sup>32</sup> S. Milstein, 'Schoenberg's Serial Odyssey'. Analytical review of Haimo's book of the same name, in *Music and Letters* 73 (1992), pp.62-74.

knowledge and realization that comes from musical logic.'<sup>33</sup>

Milstein, therefore, supports the view that the continuity of Schoenberg's musical thought, which cannot be demonstrated by 'closed' analytical systems such as Schenker's *Ursatz* or set theory, might be better substantiated by focusing attention on Schoenberg's own view of and statements about his compositional procedures. Her work sets about reappraising 'the extent and nature of the integration of traditional principles of musical discourse and twelve-tone principles of association in Schoenberg'.<sup>34</sup>

This study seeks to demonstrate Schoenberg's compositional continuity by exposing the motivic processes and relationships in music representative of his stylistically diverse output. It does not purport to give a comprehensive account of this continuity, but to establish an understanding of the interactive nature of the Schoenbergian concepts of *Grundgestalt* and *developing variation* that co-exist in the music. It affirms Milstein's view that Schoenberg's twelve-tone music is not appropriately understood exclusively in terms of the new method, but does not, however, concentrate solely on the music from that period.

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<sup>33</sup> Milstein, *Arnold Schoenberg: notes, sets, forms*, p.173.

<sup>34</sup> Milstein, op. cit, p.xiv.



## CHAPTER TWO: CONSPECTUS

### 2.1 The *Grundgestalt*

The notion of a *Grundgestalt* as 'the musical shape or phrase which is the basis of a work and its "first creative thought" (to use Schoenberg's words)'<sup>1</sup>, is said to have been formulated by Schoenberg in 1919, during the early stages of his development of the twelve-tone principle. It was - according to Josef Rufer - a 'universally valid' concept, invented by Schoenberg to demonstrate a continuity between the compositional processes of the classic-romantic Viennese school and his own music, be it tonal, atonal or twelve-tone. The term *Grundgestalt* itself was never clearly defined by Schoenberg in his theoretical writings, a point which all who attempt to build a framework for it must initially acknowledge. Recent writers have collated and discussed apposite comments and indirect references made by Schoenberg in his writings and combined these with evidence from his composition students, with whom Schoenberg did actually discuss the concept. The first part of this chapter will deal with the *Grundgestalt* in the light of recent theoretical writings in order to acquire a clearer picture of Schoenberg's concept, and subsequently to extract a set of criteria for the establishment of a *Grundgestalt*.

The first extensive writer on the *Grundgestalt* concept was David Epstein. In his 1979 publication, *Beyond Orpheus* Epstein states that the *Grundgestalt* 'was a fundamental concept for Schoenberg, one from which subsequent ideas would emerge. Its usefulness to him was mostly that of a background influence for the more precise and systematic compositional procedures that evolved as twelve-tone theory'.<sup>2</sup> He also discusses its

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<sup>1</sup> J. Rufer, *Composition with Twelve Tones*, (New York, 1954), p.vi.

<sup>2</sup> D. Epstein, *Beyond Orpheus: Studies in Musical Structure*, (Cambridge, Mass., 1979), p.21.



broader ramifications taken to the extreme by the total serialists. His studies were prompted by the notion that, linked by the *Grundgestalt* idea, there exists an historical chain of evolution from the classical premise of unity to tightly organised total serialism.

Total serialism can be seen in historical perspective as systematizing and extending, perhaps to the ultimate degree, certain musical concepts emanating from the *Grundgestalt* idea - concepts developed through the intermediary stage of twelve-tone practice. Yet the *Grundgestalt*, with its implicit premise of unity, was itself based largely upon the music of the classic-romantic era.<sup>3</sup>

Epstein builds his theory from two main sources: Schoenberg and Josef Rufer, one of Schoenberg's pupils. In his second chapter, Epstein quotes the letter from Rufer to Humphrey Searle (the translator of Rufer's book *Composition with Twelve Tones*) which clarifies the concept of the *Grundgestalt*.<sup>4</sup> Epstein concludes from the letter that the concept included parameters other than pitch configurations. He goes on to quote Schoenberg<sup>5</sup> and reinforces his idea that 'the *Grundgestalt* denotes a configuration of musical elements that is significant to the form and structure of a work and is manifested throughout the work in differing guises and on various structural levels.'<sup>6</sup>

What interested Epstein was whether the aspects (parameters) of the *Grundgestalt* - that had been developed to extremes in total serialism, e.g. dynamics and register, - actually had structural significance in the music of earlier periods. His work concentrates on the idea that the *Grundgestalt*

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<sup>3</sup> Ibid., p.27.

<sup>4</sup> Ibid., p.18.

<sup>5</sup> Ibid., p.19.

<sup>6</sup> Ibid., p.19.

exerted influence not only in the domain of pitch (with which Schoenberg was largely pre-occupied) but also in other parameters of musical structure. In so doing, he extended the work of earlier writers such as Réti, Keller, Walker, and Rosen,<sup>7</sup> whose work was largely pitch-shape orientated. He discusses pitch (thematic shape, harmony), duration (rhythm, metre, time, tempo) and phrasing and nuance as separate 'domains'. In a later chapter he applies his broadening of the *Grundgestalt* concept to an analysis of the first movement of Beethoven's Eroica Symphony, in an attempt to demonstrate the relationship of the whole movement to the opening *Grundgestalt* in all parameters rather than purely pitch and pitch relations.<sup>8</sup>

Epstein's work serves to highlight the need both for a wider perception of the *Grundgestalt* and for a deeper understanding of its pervasiveness. Of primary interest to this part of the study are Epstein's sources, Schoenberg and Rufer, from whose writings he drew his conclusions about the nature of the *Grundgestalt* itself. The first of the quotations below is part of the letter from Rufer to Humphrey Searle.

In his composition teaching, Schoenberg formed the concept of the *Grundgestalt* (basic shape) as early as 1919 and used it with the exact meaning which it has in my book - as being the musical shape (or phrase) which is the basis of a work and is its "first creative thought" (to use Schoenberg's words). Everything else is derived from this - in music of all kinds, not only twelve-note music; and it is not derived merely from the basic series which is contained in the basic shape, but also from all the elements which, together with the series as the melodic element, give it its actual shape, that is, rhythm,

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<sup>7</sup> R. Réti, *The Thematic Process in Music*, (New York, 1951); H. Keller, 'The Chamber Music' in *The Mozart Companion*, ed. Robbins Landon and Mitchell (London, 1956); A. Walker, *A Study in Musical Analysis*, (London, 1962); C. Rosen *The Classical Style* (London, 1971).

<sup>8</sup> Epstein, op. cit., pp.111-138.



phrasing, harmony, subsidiary parts etc. In this connection it is especially important to note that Schoenberg, who in those days was working out his method for the first time, applied the results of his composition with twelve notes to composition in general from the outset, by choosing the concepts he used for the theoretical formulation of his method in such a way that they could also apply to music of any kind (tonal, classical etc.).....In my very full notes of his teaching between 1919 and 1922 I find these definitions: a motif is the very smallest musical form, consisting of at least one interval and one rhythm. The next sized form is the *Grundgestalt* or phrase, "as a rule 2 to 3 bars long" (the number of bars depending on the tempo, among other things), and consisting of the "firm connection of one or more motifs and their more or less varied repetitions." The next sized form, the theme, "arises from the need to connect several shapes together" and consists of "the connection (here he expressly does not say firm) of the *Grundgestalt* (basic shape) with its more or less varied repetitions."<sup>9</sup>

Rufer's detailed breakdown of the opening of a work into constituent fragments provides the closest definition of the physical *Grundgestalt* itself. Epstein does not concern himself with this specific issue. He is more concerned with the broader concept of which Schoenberg writes:

A real composer does not compose merely one or more themes, but a whole piece. In an apple tree's blossoms, even in the bud, the whole future apple is present in all its details - they have only to mature, to grow, to become the apple, the apple tree, and its power of reproduction. Similarly, a real composer's musical conception, like the physical, is one single act, comprising the totality of the product. The form in its outline, characteristics of tempo, dynamics, moods of the main and subordinate ideas, their relations, derivations, their contrasts and deviations - all these are there at once, though in embryonic state. The ultimate formulation of the melodies,

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<sup>9</sup> Rufer, *Composition with Twelve Notes*, pp.vi-ix.

themes, rhythms, and many details will subsequently develop through the generating power of the germs.<sup>10</sup>

Epstein's considerations of the *Grundgestalt*, as has already been said, are primarily aimed at revealing unity within a work and the influences of manifold parameters on its structure. The emphasis upon unity in the works, however, belies his initial call for a 'dynamic' rather than 'static' form of analytical system. He does not attempt to demonstrate the unfolding of the *Grundgestalt* in the first movement of Beethoven's *Eroica* Symphony through time, but rather how it underlies and underlines the whole. This approach stands far closer to the idea of a 'static' presentation than one that is moving toward the need for a 'dynamic' system, in that it does not concern itself with the 'growth' of the seed into the apple tree, but more with the relationship of the tree, leaves, buds, bark etc., to the seed. By avoiding the exploration of compositional growth, and in his preoccupation with the unity of the work stemming from the *Grundgestalt*, Epstein has no need for a 'dynamic' system. In this sense of the meaning of 'dynamic' - which, it must be stressed, is only part of what Epstein was driving at - his work is limited.<sup>11</sup> The present study does not presume to have the answer to the need for a 'dynamic' system, but it does have as its central focus a concept of motivic process in Schoenberg's music, i.e., that process which proceeds from the *Grundgestalt* on a surface level, as well as the underlying relationship each structural moment in the music has with the *Grundgestalt*. In other words, this study will consider that which Epstein does not, namely, the *developing variations* which the motives of the *Grundgestalt* undergo in order to build a work. It is in this sense a more dynamically-orientated study than that of Epstein.

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<sup>10</sup> Schoenberg, *Style and Idea*, p.201.

<sup>11</sup> Epstein, *Beyond Orpheus*, pp.195ff.



Another writer who draws upon Rufer and Schoenberg, but from a different perspective, is Severine Neff.<sup>12</sup> Her article, entitled 'Aspects of Grundgestalt in Schoenberg's First String Quartet, op.7', discusses in close detail the opening thirty bars of the Quartet, to which we shall return later in this study. In her brief exposition on the concept of the *Grundgestalt*, Neff marks a distinction between *Grundgestalt* and 'idea':

The totality of the piece, or its "idea", must not be confused with the technical means of realizing the "idea" through different musical transformations of the same "basic shape", or *Grundgestalt*.<sup>13</sup>

Neff's source for the above statement is found in Schoenberg's essay 'New Music, Outmoded Music, Style and Idea' in which he writes:

In its most common meaning the term idea is used as a synonym for theme, melody, phrase, or motive. I myself consider the totality of a piece as the idea: the idea which its creator wanted to present.<sup>14</sup>

By indicating a difference between *Grundgestalt* and idea, Neff rejects the notion of the *Grundgestalt* as 'manifesting the idea behind the music' as the 'vision of a totality', being in favour of the concept as 'a concrete musical statement'. This distinction raises the separate issue of the nature of the *Grundgestalt*, rather than its function and application, to be discussed below. Neff's definition of *Grundgestalt* emphasises a more specific 'foreground' process than Epstein's:

The *Grundgestalt* is the coherent structural material which is

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<sup>12</sup> S. Neff, 'Aspects of Grundgestalt in Schoenberg's First String Quartet, Op.7', *Theory and Practice* 9 (1984), pp.7-56.

<sup>13</sup> Ibid., p.12.

<sup>14</sup> Schoenberg, op. cit., pp.122-123.

repeated and transformed *within the first phrase of a piece* [emphasis added]....Subsequent transformations of the motives of the *Grundgestalt* generate the composition in its myriad dimensions - the musical manifestation of the idea.<sup>15</sup>

Neff's analysis concerns itself with 'the reshaping of the basic shape in light of several theoretical concepts developed by Schoenberg: monotonicity, regions, substitutes, transformations, vagrants, and liquidation.'<sup>16</sup> Her procedures will be discussed in the next chapter of this study, which is primarily concerned with the generation of Schoenberg's compositions from the 'working out' of their *Grundgestalten*.

Separation of the perspectives of Neff and Epstein is largely artificial, since both writers complement their views - albeit in passing - with comments that show the need for a more complete understanding. Epstein points out that many of Schoenberg's statements 'focus largely upon three successive and interrelated matters: first, upon motive, which played a pervasive role in his thinking; second, upon the extension of motive to make motive forms; and third, upon the concept of *developing variations*, whereby motives (and other shape ideas) continually transform and grow.'<sup>17</sup>

Neff's article, whilst limited to the first thirty bars of a work three quarters of an hour in length, concludes:

The completed score of the First Quartet shows that Schoenberg generates his material for the piece out of harmonic, linear (melodic), and regional (tonal) transformations of the basic shape. The first sketch of the Quartet shows that he began with a variant of the basic shape from which all other material is derived. The "verwenden"

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<sup>15</sup> Neff, op. cit., p.12.

<sup>16</sup> Ibid., p.13.

<sup>17</sup> Epstein, *Beyond Orpheus*, p.19.



sketch demonstrates that he consciously worked with the motives of the basic shape to ensure coherence in his work.<sup>18</sup>

The difference in emphasis between the two writers does, however, highlight the necessity to consider both the moment-to-moment *developing variation* of the motives inherent in the *Grundgestalt* as well as the more abstract notion of its influences at more remote levels.

A further perspective, and also a succinct and pertinent assessment of the *Grundgestalt* concept, is that of Janet Schmalfeldt.<sup>19</sup> Her contribution to *Alban Berg: Historical and Analytical Perspectives* is an analytical essay on Berg's Piano Sonata, Op.1. She explores Schoenberg's pedagogical influence on Berg by examining Berg's *developing variation* of the Sonata's *Grundgestalt*, which she proffers as its 'fundamental *modus operandi*'.<sup>20</sup> Before entering into her analytical discourse, Schmalfeldt states her specific definition of the *Grundgestalt* as it applies to the Berg Sonata:

...I propose that the initial phrase of Berg's Sonata may be understood as the *Grundgestalt* of this work, and that its influence upon the complete movement will be accomplished by means of *developing variation*. To begin with, I must stress that my notion of *Grundgestalt* applies not to the initial motive of the Sonata but rather to its initial phrase. With this view, I depart radically from the numerous motive-oriented *Grundgestalt* analyses of the past; and, depending upon which of Schoenberg's own remarks about *Grundgestalt*, or 'idea', one wishes to take most seriously, it could be said that I depart from Schoenberg himself.<sup>21</sup>

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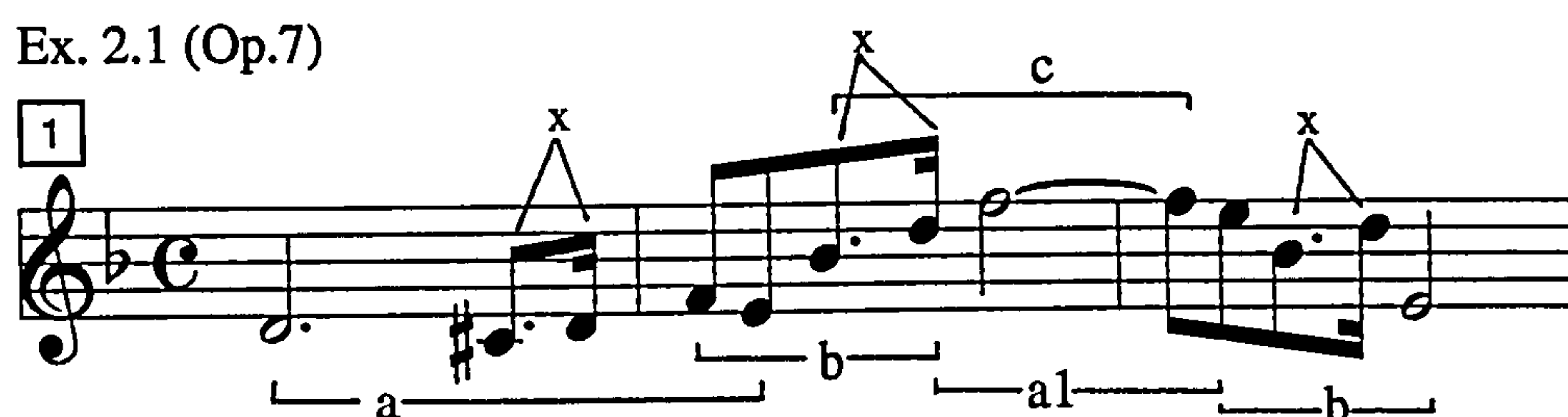
<sup>18</sup> Neff, *Aspects of Grundgestalt*, p.45.

<sup>19</sup> J. Schmalfeldt, 'Berg's Path to Atonality: The Piano Sonata, Op.1' in *Alban Berg: Historical and Analytical Perspectives*, (Oxford, 1991), pp.79-109.

<sup>20</sup> Ibid., p.79.

<sup>21</sup> Ibid., p.84.

Schmalfeldt sees the *Grundgestalt*, like Neff and Epstein, as 'a specific musical event', but broadens Neff's definition of a motivic nucleus 'repeated and transformed within the first phrase'. Or so it seems. Closer scrutiny of their analyses reveals the difference to be less than Schmalfeldt infers. Neff states quite clearly that the *Grundgestalt* of Schoenberg's First Quartet is the opening first violin line, bars 1 - 3. Her example 2 is reproduced below (Ex. 2.1):



Neff's *Grundgestalt* contains a repetition of motive b, which constitutes the extension of the opening two bars to three. She bases her selection of motives a, b, and c, on each having a different 'characteristic interval': a minor 2nd, tritone, and perfect 5th (respectively).<sup>22</sup> Each motive overlaps with its predecessor to form a chain. Neff's source for this criterion is, once again, Rufer:

such a close interlocking of the motifs with one another and with their repetitions that the musical "shape" can no longer be regarded as merely the sum of the separate parts, but as an independent organic structure. This interlocking takes place....through the overlapping of two motifs, so that the last note of one motif is also the first note of the following one....<sup>23</sup>

<sup>22</sup> I remain unconvinced by Neff's motivic selection, and by other aspects of her analysis, details of which are discussed in Chapter 3.

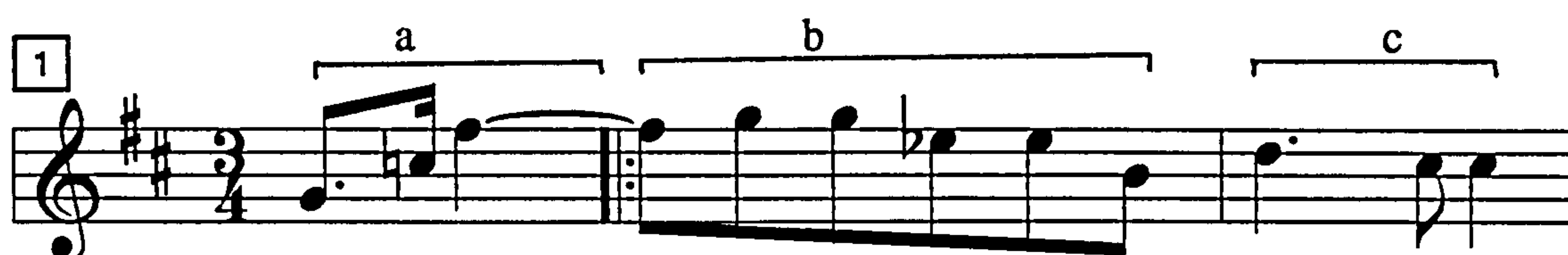
<sup>23</sup> Rufer, *Composition with Twelve Notes*, p.28.



Neff's *Grundgestalt* is the first phrase of the work. The motives of the *Grundgestalt*, which in her view is the melodic line, here permeate all parts, constructing both the viola and 'cello lines.

The annotated score in Schmalfeldt's Berg analysis brackets 'three distinct melodic motives' from which 'virtually all the melodic material will be generated by means of *developing variation* (Ex. 2.2).<sup>24</sup>

Ex. 2.2 (Berg *Sonata Op.1*)



Each, she says, has a distinct harmonic implication, the sum of which provides the harmonic vocabulary of the work. Schmalfeldt does not overlap her melodic motives, which enables her to highlight the differences in shape and interval content. The harmonic implication of the opening sonority, however, would suggest that the g' on the second quaver beat of bar 2 actually belongs to motive a and not b. Schmalfeldt's own harmonic reduction of this opening sonority certainly affirms the harmonic dominance of the g' over the f#'.<sup>25</sup>

Redefining Schmalfeldt's motive a to include the g' exposes a connection with motive c. The dotted crotchet - quaver descending semitone in bar 3 associates directly with the rising semitone f#' - g' both rhythmically and intervallically. Furthermore, the metric stresses occur in minims, beginning at the last beat of bar 1, (on the f#') until the triple metre is established at the end of bar 3.

<sup>24</sup> Schmalfeldt, op. cit., p.85.

<sup>25</sup> Ibid., p.92.

This alternative reading gives emphatic prominence to both rising and falling semitone figures. Motive c might therefore be better understood as a repetition (albeit inverted and transposed) of a. Schmalfeldt notes the bass and alto descending semitone figurations as the source for her motive c. She states that the alto diminutions of the semitone steps are associated with the opening dotted quaver - semiquaver rhythm of motive a, 'inviting us to hear motive c as an augmentation.'<sup>26</sup> Schmalfeldt completely ignores the semitone ascent mentioned above, inclusion of which would result in the opposing aural perception: the alto diminutions would be seen as a diminution of the f# - g dotted crotchet - quaver rhythm, and by implication, therefore, as diminutions of the motive c that they accompany. Schmalfeldt's suggestion that the process of *developing variation* is already at work by this point (that is, the beginning of bar 3) is correct, but not in the way that she proposes. Further aspects of this analysis will be discussed later. Schmalfeldt's observation that the *Grundgestalt* comprises the initial phrase of the work is fundamentally no different from Neff's. Nor, it turns out, do their respective discussions of the influence of the melodic line on other aspects of the *Grundgestalt* particularly differ from another.

A fourth writer considers Schoenberg's *Grundgestalt* concept in relation to Heinrich Schenker's analytical methods. Graham Phipps, writing in 1978, analyses Chopin's 'Étude Op.10, no.12' as a response to Schenker's own voice-leading analyses.<sup>27</sup> He discusses the differing stances of the two (Schoenberg and Schenker), with particular reference to their ideas of harmony. He challenges Schenker's notion that 'all conventional concepts,

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<sup>26</sup> Ibid., p.96.

<sup>27</sup> G. Phipps, 'A Response to Schenker's Analysis of Chopin's Étude, Opus 10, No.12, Using Schoenberg's Grundgestalt Concept', *Musical Quarterly* (1978), pp.534-569.



such as functional harmony, modulation, etc. fail' within the work.<sup>28</sup> Phipps's reply is that 'all harmony in the composition is functional in terms of nineteenth-century harmonic practice as presented by Sechter in *Die Grundsätze* and, indeed, by Schoenberg in *Harmonielehre*. Furthermore, perception of this functionality leads to recognition of normative patterns in Chopin's musical style.'<sup>29</sup> For a definition of the *Grundgestalt* Phipps turns to an earlier study by Epstein:

*Grundgestalt* (Basic Shape) - a configuration of musical elements, formatively significant in a composer's thinking with reference to the structure of a particular work. This significance is manifested in the course of the work through the appearance of this configuration in differing guises and on differing structural levels. In so appearing, certain intrinsic features are retained but varied or disguised by means of embellishments, elaborations, interpolations and/or contractions of elements, inversions, augmentations and diminutions, and other procedures of compositional manipulation.<sup>30</sup>

Phipps suggests that the *Grundgestalt* in Chopin's Étude is not presented by the main melodic material, as one might expect, but by the opening eight bars of introductory material.

Whereas mm. 9 - 18 might appear to be the main melodic material of the composition (which, of course, it is) and may, in fact, have been Chopin's original "basic idea," nonetheless, in the finished composition as we perceive it, the first eight measures constitute the first presentation of ideas. Since the listener can only hear the composition in its finished form, one may legitimately regard mm. 9 - 18 as predicated upon events

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<sup>28</sup> H. Schenker, *Five Graphic Analyses*, (New York, 1969), p.58.

<sup>29</sup> Phipps, op. cit., p.553.

<sup>30</sup> D. Epstein, *Schoenberg's Grundgestalt and Total Serialism: Their Relevance to Homophonic Analysis*, (Ph.D. dissertation, Princeton University 1968), p.14.

from the first eight measures, and hence may consider mm. 1 - 8 as the actual *Grundgestalt*, the source of all musical events in the composition.<sup>31</sup>

Phipps challenges the validity of Schenker's graphic analysis, with particular reference to the subdominant pitch and function in the piece, which are 'conspicuously absent in Schenker's middleground and background of the entire Étude'.<sup>32</sup> Phipps' delimitation of the *Grundgestalt* is well substantiated with regard to its pitch influences and on the whole his work is convincing, although he makes a motivic connection between the 'tonicized regions of measures 29 - 36' and 'the treble line in bar 72' which is difficult to swallow.<sup>33</sup> Also, I am not as convinced as Phipps that the music modulates, which he implies by rejecting Schenker's reference to the failure of such a concept.<sup>34</sup> The music does not remain in any particular region for long enough to establish a key other than the tonic and consequently any reference to modulation would be false. The music does touch on closely and more distantly related keys, but these are simply regions of C minor. Both Schenker and Schoenberg would maintain that the entire work is in that key. What is more important, to my mind, is not the existence or necessity of modulation or functional harmony, but the conflict between the subdominant and tonic regions in the piece. I agree with Phipps that the subdominant is an important element in the work but would take his assertion further.

The opening semiquavers are ambiguous in their harmonic content: on the one hand, the 'thetic' notes F and B (to use Phipps' term) outline the dominant seventh in the treble; on the other, the descending pitch shape Ab-

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<sup>31</sup> Phipps, op. cit., p.553, footnote 43.

<sup>32</sup> Ibid., p.553.

<sup>33</sup> Ibid., p.563.

<sup>34</sup> Ibid., p.553.



G-F of Phipps' antecedent directly refers to the subdominant whilst the E $\flat$ -D-B becoming E $\flat$ -D-C implies the tonic. On the fourth beat of bar two, the tonic C in the bass forms part of a IV<sup>7</sup> chord, creating an ambiguity in the function of the note as tonic or 5 of IV (Ex. 2.3).

Ex. 2.3 (Chopin Op.10 No.12)

The musical score shows the first two bars of Chopin's Op.10 No.12. The bass line has a semiquaver accompaniment. A bracket labeled 'Thetic Notes' points to the notes C, D, E, and F in the bass line of the first bar. Below the staff, the harmonic analysis is given as: c: v7 (V -) I IV<sup>7</sup> (V) V.

In the second statement of the theme, the subdominant acts as a local dominant to B $\flat$  (bars 24 - 28) and is not referred to again until it is 'tonicized' at bar 37 (Ex. 2.4 shows the harmonic scheme of bars 23 - 37). This is the only place in the work where the semiquaver accompaniment to the main theme, which rises through more than two octaves, appears in a form other than the tonic. Here it outlines the subdominant, F minor. In the final eight bars, where both Schenker and Phipps agree that the tonic is affirmed, this motivic pattern of the *Grundgestalt* is transposed to a subdominant form (incidentally, the only other form that shares the G - A $\flat$  (- G) dyad). These last eight bars create the greatest tension between the two regions. The persistence of the transposed motive-form reinterprets the C major chords as dominants of F minor cadences rather than the tonic major of plagal progressions. Consequently, the final utterance of the semiquavers results in an implied F V - I perfect cadence into the penultimate bar. The ambiguity of tonality is continued by the repetition of the plagal + Tierce de Picardie cadence, which cannot be fully interpreted as a progression in C minor.

Ex. 2.4 (Chopin Op.10 No.12)

The image displays a musical score for Chopin's Op.10 No.12, specifically measures 23 through 37. The score is written for piano in a single system, with a treble and bass clef. The key signature is one flat (B-flat). The tempo is marked 'c' (crescendo). The score is annotated with harmonic analysis, including Roman numerals and chord symbols. The analysis is as follows:

- Measure 23: c: I
- Measure 24: Bb: IV<sub>b3</sub> V
- Measure 25: VII- I IV
- Measure 26: Bb: H
- Measure 27: IV<sub>aug 6</sub> V<sub>4</sub><sup>6</sup>
- Measure 28: d#: I V
- Measure 29: d#: IV
- Measure 30: c#: H
- Measure 31: H IV
- Measure 32: c#: I
- Measure 33: V H
- Measure 34: IV<sup>7</sup>
- Measure 35: f: V<sub>7</sub>
- Measure 36: I
- Measure 37: I

All the writers discussed so far appear to be in agreement as to the concrete manifestation of the *Grundgestalt* in a musical form at the beginning of a work. Each sees the more abstract notion of *Grundgestalt* as being the idea



behind a work as an analytical side issue. Patricia Carpenter, the fifth contributor to the present exploration of the *Grundgestalt*, centres her article 'Musical Form and Musical Idea: Reflections on a Theme of Schoenberg, Hanslick and Kant' on the consideration of the latter.<sup>35</sup> The first ten of thirteen subsections discuss the tension between aesthetics and logic, the subjective and objective. Schoenberg is later isolated and considered in light of the preceding subsections. Carpenter concludes in subsection twelve that form is the articulation of the musical idea, and that to her mind 'Schoenberg ultimately conceives of the musical idea in its Platonic sense, like Kant, as beyond sense experience. The musical space is the space of thought; the musical idea is an "idea of intellect," not a perceptual image. It sets the mental powers into swing, puts us into a state of cognitive readiness, brings the object into perception, makes it apprehensible, as if "purposive".'<sup>36</sup> Earlier in the same subsection she regards the idea as 'a single concrete musical thought.'<sup>37</sup> Further on, in subsection thirteen, she arrives at the notion of a dual sense of idea in Schoenberg's mind (though not with great clarity): firstly, as the abstract totality of a piece and secondly as the smallest concrete element of a piece, a step away from the *Grundgestalt* itself.

Carpenter's article concludes with a brief analysis of Beethoven's *String Quartet Op.95*. The central issue in her analysis is that of imbalance, or ambiguity, in need of clarification and ultimate restoration. She focuses on the ambiguity created by Beethoven's exploitation of the enharmonically equivalent D natural (natural 6 of F) and E $\flat$  (flattened 6 of

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<sup>35</sup> P. Carpenter, 'Musical Form and The Musical Idea: Reflections on a theme of Schoenberg, Hanslick and Kant' in *Music and Civilisation: Essays in Honour of Paul Henry Lang*, ed. Strainchamps and Maniates (New York, 1984), p.418ff.

<sup>36</sup> Ibid., p.417.

<sup>37</sup> Ibid., p.416.

G $\flat$ , the Neapolitan region). Her final conclusion refers back to Schoenberg and attempts to tie in the two sections of her article:

I believe he [Schoenberg] would agree with his friend Karl Kraus that although the source of the idea is in the fantasy, truth lies in the reconciliation of fantasy and reason - that not only the creator, but also the beholder, in the true experience of art, is "a human being painfully stirred by the search for inward harmony."<sup>38</sup>

Carpenter's tendency to concentrate on the imbalance/restoration aspect of the *Grundgestalt* stems from Schoenberg's statement that 'the method by which balance is restored' seemed to him 'the real idea of the composition'.<sup>39</sup> Her preoccupation is therefore more with the broader sense of *Grundgestalt* than the specific motivic growth and influence of a 'concrete musical thought'.

It seems to me that Schoenberg understood the 'idea' as being something initially 'beyond sense experience' which then had to be brought into being. Manifested in a concrete way by the creator into a seed (*Grundgestalt*) ultimately germinating into a totality, it could then be perceived by all. The abstract idea and the concrete musical thought cannot and do not exist without each other. I conclude with a quote from Schoenberg himself:

What I sense is not a melody, a motive, a bar, but merely a whole work. Its sections: the movements; their sections; the themes; their sections: the motives and bars - all that is details, arrived at as the work is progressively realized.. ..The inspiration, the vision, the whole, breaks down during its representation into details whose constructed realization

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<sup>38</sup> Ibid., p.427.

<sup>39</sup> Schoenberg, *Style and Idea*, p.123.



reunites them into the whole.<sup>40</sup>

The writers considered in this chapter all present analyses using Schoenberg's *Grundgestalt* concept, and to a greater or lesser extent attempt to demonstrate how a given work ensues from the *Grundgestalt*. The works analysed range from Beethoven, Chopin through Brahms to Berg and Schoenberg himself. Schmalfeldt's work is the most recent and indeed the most relevant to this study. She is the only writer to consider the equal importance of the *Grundgestalt* and *developing variation* and she is also the first to explore the concepts together in music on the verge of atonality. [The work of Ethan Haimo<sup>41</sup> and Jack Boss<sup>42</sup> on *developing variation* in Schoenberg's atonal music will be discussed later.]

What emerges from the above examples is that any enlightening analysis applying the *Grundgestalt* concept must extend over a wider scope than that which demonstrates purely thematic connections. The process of *developing variation* is the generating force which enables the latent potential of a work's *Grundgestalt* to be realised. How it unfolds through the interdependent process of *developing variation* and thus how it influences other 'domains', must also be considered.

In order to demonstrate such features in several works in a comparative manner, as this study proposes, it is fruitful first to present analyses of the broader, thematic type, before documenting the motivic processes of *developing variation* that Schoenberg's *Grundgestalten* undergo.

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<sup>40</sup> Ibid., p.107.

<sup>41</sup> E. Haimo, *Schoenberg's Serial Odyssey*, (Oxford, 1990).

<sup>42</sup> J. Boss, 'Schoenberg's Op.22 Radio Talk and Developing Variation in Atonal Music', *Music Theory Spectrum* (1993), p.125ff.

## 2.2 Criteria for the Evaluation of a *Grundgestalt*

The general consensus of the foregoing adductions, regarding the size of the *Grundgestalt*, is that it constitutes the opening phrase of a work. Writers diverge over the issue of what specifically defines the musical event. Is it limited to a purely linear structure of one voice as Neff suggests? Or does its harmonic language have influential consequences for the rest of the work? Should it therefore be seen as multi-dimensional as Schmalfeldt and Epstein maintain?

It is assumed by all except Phipps that the primary motivic source is the opening melodic shape. Whether other parts are also primary, products of the primary, or secondary, might be inferred by delimitation and comparison of the motivic constituents of each part. It will be seen, however, that delimitation and comparison of the opening bars of each work still yields insufficient evidence to allow a complete definition of the *Grundgestalt* to be given. Examples 2.5a-d show the opening bars of the four Quartets. The alphanumeric delimitations show the relationships between the motives in the following manner; the upper case letter denotes primary or secondary sources (which combine to form the *Grundgestalt*): the lower case letter denotes a division of motivic groups within the primary or secondary source (the *Urmotive*): the numeral denotes each separate *Urmotiv*.\*

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\* A full discussion of the motive, and particularly the motivic delineations of these *Grundgestalten* can be found in Chapter Three, pp.59 - 87.



Ex. 2.5a (Op.7)

Ex. 2.5a (Op.7) musical score showing four staves: Vln 1, Vln 2, Vla, and Cello. The score is in 3/4 time with a key signature of one flat. Vln 1 has a first ending bracket labeled '1' and contains motifs labeled Aa, Ab1, Ab2, Ab3, and Ab4. Vln 2 is mostly silent. Vla contains a motif labeled 'C'. Cello contains motifs labeled Ba and Bb.

Ex. 2.5b (Op.10/1)

Ex. 2.5b (Op.10/1) musical score showing four staves: Vln 1, Vln 2, Vla, and Cello. The score is in 3/4 time with a key signature of two sharps. Vln 1 has a first ending bracket labeled '1' and contains motifs labeled x, Aa1, Aa2, Ab1, and Ab2. Vln 2 contains motifs labeled Aa1 (y) and Aa1 (x). Vla contains a motif labeled y. Cello contains motifs labeled x and Aa1(a).

It can be seen that each quartet produces a different answer in the quest for the physical embodiment of the *Grundgestalt*. In the Op.7 Quartet (Ex. 2.5a), the three lines of counterpoint all yield distinctly different motivic shapes, hence the upper case labelling of A B & C. It is possible then, that these three sources might play distinctive roles in the development of the work. In the Op.10 Quartet (Ex. 2.5b), the three lower parts are derived directly from the initial intervals and contours of the vln 1 *Urmotive*, and their significance within the work is far less than the vln 1 line.

Ex. 2.5c (Op.30/1)

The musical score for Ex. 2.5c (Op.30/1) is presented in two systems. The first system contains measures 1 through 6, and the second system contains measures 7 through 12. The instrumentation includes Violin 1 (Vln 1), Violin 2 (Vln 2), Viola (Vla), and Cello. In the first system, Vln 1 has a melodic line starting with a measure rest, followed by notes H, F#, Bb, and Ba. Vln 2 and Vla play a quaver figure labeled 'A'. Cello has a measure rest. The second system continues the melodic line in Vln 1 with notes Bb, F#, Ba, and F#. Vln 2 and Vla continue the quaver figure 'A'. Cello has a counterpoint line with notes N, F#, and Ba. The score is written in C major and 3/4 time.

The Op.30 Quartet (Ex. 2.5c) opens with a figure of eight quavers constructed from five pitches (*Urmotiv A*). Each of the middle three quavers is repeated as soon as it is sounded. This eight note figure is alternated between vln 2 and viola at an octave's distance for the opening twelve bars. Due to its constant repetition and also the gradual diminuendo of the figure over the first four bars, it takes a subordinate position to the other two instrumental lines (vln 1 and cello). The vln 1 *Hauptstimme* comprises two four-bar phrases from which the cello counterpoint is derived. Like the Op.7 Quartet, the writing is contrapuntal and the rhythmic, contour, and intervallic differences between the quaver figure



and the *Hauptstimme* imply two distinct *Urmotive*. Here the *Urmotive* of the *Grundgestalt* are inherent not only in the opening eight-note accompanimental figure (as, for instance, in the Chopin Étude), but also comprise the remaining material of the first twelve bars of the work.

In Op.37 (Ex. 2.5d), Schoenberg partitions the note row into groups of three and rotates them in the accompanying parts underneath a linear presentation in vln 1. Whilst this shows that the vertical chord structure is directly derived from the opening vln 1 melody, it does not take into account the linear motivic shapes yielded by the three underlying voices, the majority of which bear no direct intervallic relationship to the vln 1 melody (or, in set-theoretic terms, are not equivalent to ordered segments of the row). Consequently the lower parts, whilst being derived from the melodic line, form discrete motive-forms that may or may not have a significant influence on the rest of the work.

Ex. 2.5d (Op.37/1)

The musical score for Ex. 2.5d (Op.37/1) is presented in four staves: Vln 1, Vln 2, Vla, and Cello. The Vln 1 staff is marked with a box containing the number '1' at the beginning. Above the Vln 1 staff, four groups of notes are bracketed and labeled I, II, III, and IV. Below the Vln 1 staff, the notes are labeled with letters and primes: Aa, Ab', AaI', AbI', Aa, and Ac. The Vln 2, Vla, and Cello staves show the corresponding parts for these groups. Below the Cello staff, the groups are labeled with Roman numerals: II, III, IV, III, IV, I, IV, I, II, I, II, and III. The score is in 3/4 time and features a key signature of one sharp (F#).

It would seem then, that, taken in isolation from the rest of their respective works, it is not possible to differentiate between significant and less significant features of the *Grundgestalt*, since each of the above cases

presents a different manifestation of motives within the four instrumental parts. In order to establish this content, an overall view of each work demonstrating thematic and motivic derivations and connections is needed.

### 2.3 Overview of the Quartets

The thematic charts (see back insert) map the appearances of themes throughout the Quartets. Each chart attempts to show clearly the connections with the *Grundgestalt* and how the subsequent thematic shapes beget others or combine to do so. My intention is to demonstrate the *Grundgestalt*'s periodic growth (long range *developing variation*) rather than its continuous motivic development (local *developing variation*): a kind of 'middleground' (though not in the Schenkerian sense).

How Schoenberg treats the thematic development with reference to the overall structure is of particular interest since the quartets are formally different. The Op.7 Quartet is a continuous structure of four integrated movements in which the opening Sonata-Allegro is interwoven with the other three movements. Schoenberg's own comment on the Op.10 Quartet reveals that, despite the work having four discrete movements, there still exists an element of integration between them. He states that with the Op.10 Quartet 'the cyclic form had returned'.<sup>43</sup> If what Schoenberg had in mind here is a formal structure in which the themes are heard in more than one movement, then both Op.7 and Op.10 can be said to be cyclic, since the thematic material in one movement re-appears in others in both cases. This 'cyclism' can be summarised thus:

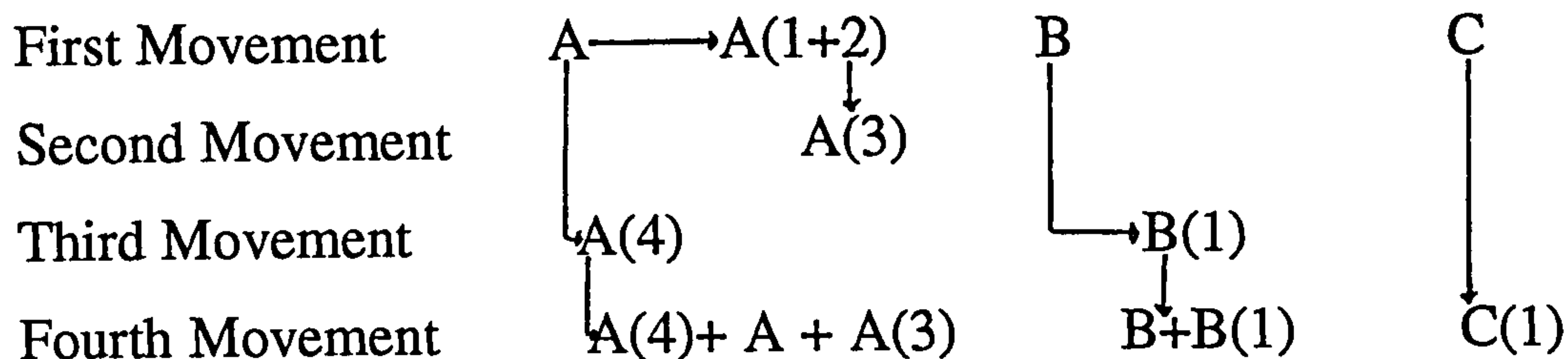
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<sup>43</sup> Schoenberg, *Schoenberg, Berg and Webern, The String Quartets*, ed. U. Rauchhaupt, (Hamburg, 1971), p.43.



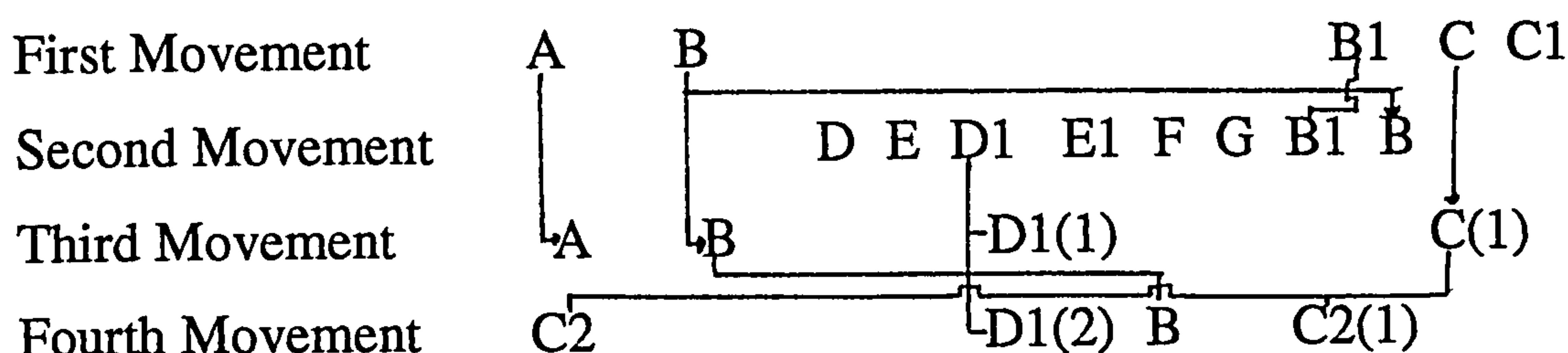
## Op.7 Quartet

### Themes



## Op.10 Quartet

### Themes



On the surface, then, there is no doubt that in both works, later movements state themes initially heard in earlier ones (see the thematic charts). The important difference between the appearances in the Op.7 Quartet and those in the Op.10 is the level of transformation or development:<sup>44</sup> the Scherzo of the Op.7 Quartet grows out of a subsidiary theme in the transition of the first movement and is not recognisable in rhythm or shape as being directly related to theme A itself. The same can be said of themes A(4) and B(1) in the slow movement and the appearance of C(1) in the Finale. All are developed (altered) in some way before re-appearing. In the Op.10 Quartet, however, Schoenberg makes clear the connection between A in the first and third movements: likewise theme B. Theme D1 from the Scherzo is literally repeated (a semitone lower) with similar

<sup>44</sup> In this study the meaning of 'development' and 'developed' is restricted to the alteration of **either** the contour **or** the rhythmic attribute of a motive, with or without alterations to the intervallic structure. 'Transformation' here means alteration to **both** contour and rhythmic attributes. For a more detailed explanation, see Chapter Three of this study.

rhythmic proportions; in the fourth movement, it is subject to retrograde inversion, but to all other intents and purposes it is another repetition. The final theme of the first movement (C) re-appears, again quite clearly, in the prologue of the third movement ( C(1) ). In the fourth movement, C is developed into C2, but all other motive-forms within are either repetitions of motive-forms from the third movement (acting thereby almost as an extension of it) or developments of the new C2 motive. In all other cases in the Op.10 Quartet, the thematic material does not show developing progression<sup>45</sup> from movement to movement: it is either repeated or the motives remain 'fixed' (that is, not developed); it may be developed within the movement; or derived directly from the *Grundgestalt*.† In the Op.7 Quartet, however, each thematic development is more often than not the development of a preceding theme.

Schoenberg's differing treatment of the thematic material in the Op.7 and Op.10 Quartets has clear formal consequences. The single-movement structure of the Op.7 Quartet results from extended development of opening themes that unfolds as a gradual process. Although there is a structural demarcation at the beginning of the slow movement, the extended development of this theme into the Rondo theme, transformation of theme B into the secondary theme of the slow movement, and re-appearance of themes in the Rondo serve to link the two halves together. In the Op.10 Quartet, the themes in the first movement are not themselves developed within that movement, nor is there any overlap with the themes in the second movement (save for a quotation of the B1 theme in the 'trio'). Rather there is in the second movement a new extraction of thematic constructs from the *Grundgestalt Urmotive*. The third movement - as has

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<sup>45</sup> For the purposes of this study, **progression** is to be understood as indicative of the alterations made to one or more of the several features of a motive which subsequently advance its state.

† Discussion of the motivic integration of the folk tune *O Du lieber Augustin* in the Op.10 Quartet can be found on p.139ff.



already been stated - draws its material from both preceding movements; but at this point it has not been developed or transformed for use as the thematic material of the movement: each theme is taken *per se*, and developed within the movement. The motive-forms of the fourth movement that are developed from the first and third movements develop little within the movement.

In the Op.30 Quartet, the four movements each create their own individual catalogues of thematic constructs. However, the opening themes of each movement, which are the sources for subsequent derivations therein, are shown to derive from the *Urmotive* of the first twelve bars of the first movement. The second and third movements both present versions of the opening five-note *Urmotiv* A. The third movement continues with a linear presentation of the first of the three note-rows Schoenberg uses (see chapter 4). The fourth movement's opening theme is derived from the opening *Hauptstimme Urmotiv* (vln 1, bars 5 - 12). Thus, Schoenberg creates a four-movement work by deriving thematic constructs from an original source, the *Urmotive* of the *Grundgestalt*, and then using each locally as a 'sub-*Grundgestalt*' for the development of individual movements.

In the Op.37 Quartet there is no 'cyclism' in the above sense. The four movements employ thematic material that is derived from the *Grundgestalt* and developed within each respective movement. Schoenberg clearly marks the connection between the opening theme of the slow movement and the *Grundgestalt*, by presenting the same intervallic shape and almost identical contour grafted onto a different rhythmic framework. His reason for being so blatant could be interpreted in many ways: he might have wished to emphasise the connection between the first and third movements

and by default expose a relationship between the second and fourth; conversely, it may be that he wished to force a structural demarcation between the two 'halves' of the Quartet; or that his re-rhythmicisation of the *Grundgestalt* appearance here is a sufficient 'difference' for the material to have 'derived' from it. Whatever the reason, the slow movement theme's relationship to the *Grundgestalt* is emphasised both by intervallic similarity and the unison of all four parts. Its own identity is attained by slight changes in contour, a new rhythmic framework and the oscillation of a semitone dyad G $\flat$ -F (which, as will be seen later, plays an important part in the development of the movement). The intervallic and rhythmic relationships and contours which occur at the beginning of each of the movements are created by different means: the slow movement theme is a development of the *Grundgestalt*, whereas the second and fourth movement themes are created by partitioning the *Grundgestalt* between melody and accompaniment. Schoenberg's partitioning in these movements does not create themes that can be clearly shown to have a relationship with the opening of the Quartet in the same way that the themes of the Op.30 Quartet do. The theme of the second movement is created by isomorphic partitioning of the row hexachords of the *Grundgestalt*, creating two aggregates. The opening five bars of the fourth movement comprise four distinct partitionings which yield the theme. Schoenberg creates the theme in four-note groups isomorphically partitioned from P<sub>0</sub> (order numbers 1,3,7, and 11), I<sub>5</sub>, R<sub>0</sub>, and RI<sub>5</sub>, respectively. It is in this way that Schoenberg creates a multi-movement structure out of differing thematic shapes all derived from one source. How, or whether, these movements relate *motivically* to the *Grundgestalt* remains to be investigated.

From Op.7, mature representative of his tonal period, to the Op.37 Quartet, representative of Schoenberg's mature twelve-tone style, a



progression from the single-movement through the cyclic multi-movement to the independent multi-movement presentation of the *Grundgestalt* can be observed. So, from a purely thematic stance, the varying treatment of the *Grundgestalt* motives can be shown to create the structural delimitations of single- or multi-movement forms.

## 2.4 Summary

The global extent of the thematic charts enables us to make a retrospective confirmation of the 'concrete musical thought' or *Grundgestalt* of each work. In the Op.7 Quartet themes and motive-forms are derived from the initial melody and bass line, whereas in Opp.10 and 37 the opening melodic phrase is the source for the construction of the other voices and is consequently identified as the *Grundgestalt*. In Op.30, the main melodic ideas of the first and fourth movements stem from the opening *Hauptstimme* of vln 1, but the five-note ostinato, apart from developing throughout the first movement, clearly has an influence on the later movements. Both *Urmotive* A and B therefore constitute the *Grundgestalt* here. The above evidence indirectly confirms the earlier supposition that it is not possible to delimit the *Grundgestalt* of a work without investigation of the thematic and motivic derivations that extend from it. It is only by surveying an entire work that one can select concrete musical statements (themes) and demonstrate the relationship that exists between such statements and their *Urmotive* in the work's *Grundgestalt*. So rather than providing answers to the earlier questions regarding identification and function of the *Grundgestalt*, the preceding discussion does more to underline the fact that such questions are unanswerable if one is seeking to establish a specific set of criteria that can be generally applied. One can reasonably suggest, however, that any *Grundgestalt* will comprise the

opening gestures of a work, which will almost inevitably involve the melodic line and may or may not include *Urmotive* from other subsidiary voices, affirmation of which can only be made retrospectively.

## 2.5 Comparison of the four *Grundgestalten*

The foregoing subsections have explored the nature of the Schoenbergian concept of *Grundgestalt* and have proposed its existence, at least as the source of subsequent thematic derivation and construction, in four of his works. The main concern of this thesis is, however, to consider the extent to which Schoenberg continued to compose 'in the same manner as before' regardless of the external presentation of his work. Having acknowledged the concept of the *Grundgestalt* and its existence in the Quartets Opp.7, 10, 30, and 37, and in order to discover the extent to which Schoenberg's compositional processes are, on the musical surface, still governed by his philosophy of continuity and tradition, it is perhaps appropriate to compare the four *Grundgestalten* by observing the processes at work in the development of the initial intervallic and rhythmic motivic constructions.

In the Op.7 Quartet, the opening dotted minim D descending to C# creates a semitone dyad which is reversed to form a rising dotted rhythmic figure. In the first two beats of the second bar the descending and ascending semitone dyads are repeated at different, higher pitch levels, the new descending dyad also having diminished rhythmic values that have been evened out. The original dotted ascending dyad (bar1/4) is intervallically augmented by the replacement of the C#-D with B $\flat$ -D (bar 2/2). Bars 2/3+4 - 3/1+2 form the second variation of the opening rhythmic motive: the descending semitone dyad of F-E is repeated an octave higher but this time the initial note is lengthened so as to re-associate it with the opening



note (in other words re-expand the descending dyad to imitate the original); the fourth beat after the sounding of the top F yields the dotted quaver/ semiquaver rhythm, which further confirms this as a rhythmic repetition of the initial rhythmic motive. The replacement of the C# with B $\flat$  in the second bar varies the repetition of the four note C#-D-F-E (bars 1/4 - 2/1) to B $\flat$ -D-F-E (bar 2/2+3). Subsequent repetitions of this figure intensify the B $\flat$ , further reinforced by its appearance on the downbeat of the third phrase. The constant repetition also highlights the tritone, the interval that always precedes the B $\flat$ . Example 2.6 shows the expansion and contraction of the opening rhythmic motive and the predominance of the semitone and tritone intervals.

Ex. 2.6 (Op.7)

1

*rhythm*

a

a (contracted)

a (re-expanded)

In the Op.10 Quartet, the opening rhythmic motive can be seen to expand over the first four bars (Ex. 2.7).

Ex. 2.7 (Op.10/1)

1

*rhythm*

expanded

overlap

overlap

The dotted quaver/semiquaver rhythm occupies the second beat of the first bar, being straddled by crotchets. In the second bar the pitch and rhythmic motives are dislodged from each other by virtue of the extra quaver on the first beat. The addition of the quaver effects a quicker rotation of the pitch shape and allows a fifth note to be added whilst still retaining the overall rhythmic proportions. In the third bar the dotted rhythm is transferred to the interval created by the initial 'straddling' crotchets, namely, the major third (interval 'y'). The next two beats (bar 2/2+3) are a rhythmic augmentation of the dotted figure, imposed on the opening semitone interval but a major third lower (and also a major third lower than the first beat of bar two). The third bar is then a development of the major third interval as well as an expansion of the rhythmic motive; it also reintroduces the opening semitone (interval 'x') and develops this in tandem with the rhythmic motive in the fourth bar. Across the first four bars, then, the rhythmic motive is detached from the pitch shape (in bar 2) and then expanded and overlapped (bars 3 & 4). The span from the initial note A to the top note of the phrase (C#) outlines the major third, while the fall from the C# in bar three to the B# in bar 4 emphasises the semitone interval as well as laying the foundation for the continuation of the music.

The five-pitch, eight-quaver figure that opens the Op.30 Quartet is repeated for the first twelve bars of the work and, as such, does not develop in any sense. Its ostinato quality both delimits it as an *Urmotiv* and isolates it from the vln 1 *Hauptstimme Urmotiv*. Despite this isolation there exists a relationship between the two *Urmotive*, in that they contain the same collection of internal and boundary intervals (Ex. 2.8).



Ex. 2.8 (Op.30/1)

The rhythm of the *Hauptstimme* exists in two-bar cells of dotted minim - semibreve, initiated in bars 5 and 6. Upon repetition in bar 7 the dotted minim is altered to minim - crotchet. The Ba and Bb parts of the *Urmotiv* are then set in reverse order for the ensuing four bars (9 - 12). Bars 9 and 10 present a retrograde inversion of Bb. Note repetition across the barline alters the semibreve rhythm to crotchet - dotted minim. Instead of a crotchet rest at the beginning of bar 11 the F# is tied over, which lengthens the duration to 2 (minim) beats. The final motive D - A# occurs in the same metric position as did the preceding three. This motive-form comes about by expansion of the opening semitone dyad to a major third. The two melodic phrases of the *Hauptstimme* are constructed by rhythmic repetition and symmetrical intervallic motivic repetition and expansion. The third voice in the *Grundgestalt* is the *Nebenstimme* in the cello. Its rhythm (dotted minim - semibreve) clearly imitates the *Hauptstimme*, and the intervallic content of the two dyads inverts that of the *Hauptstimme* (Ex. 2.8 cont'd).

Ex. 2.8 (cont'd)

The Op.37 Quartet *Hauptstimme* opens with a descending semitone dyad on an even rhythm of two minims. In the second bar the dyad is transposed and inverted. This second dyad is half the length of the first and the rhythmic proportions of the two notes changed to effect a 3:1 ratio. In the second half of the bar, the dyad is once again descending but has been expanded to a major 2nd; the rhythmic values are restored to equal notes but kept at half the metric length of the original. In the third bar the rhythm of the second dyad is repeated and the initial note is a fifth higher (fourth lower) than that of the second dyad; this time, however, it is grafted onto a minor 6th, an inversion of the major 3rd formed between the first and second dyads. The major 3rd interval is then repeated to pitch the fifth dyad which is an exact replica of the opening one. This penultimate dyad in the chain is tied to the opening note of the next rhythmic motive (a repeat of the four quavers); the sixth dyad then occurs on the second quaver of the four, creating a syncopation. The descending semitone motive is also grafted in to pitch the sixth dyad, which ultimately spans a fourth, the original transposition interval (Ex. 2.9).

Ex. 2.9 (Op.37/1)

Rhythm

Dyad Contour

Rhythm created by Pitch Contour

Example 2.9 shows the motivic construction of the opening *Hauptstimme* of the Op.37 Quartet. The second stave outlines the rhythmic motives used;



the third line shows the six alternately descending and ascending dyads in the melody; the fourth line demonstrates the rhythmic contour generated by pitch movement of the twelve notes.

In the construction of these *Grundgestalten*, similarities can be observed in the processes of repetition, augmentation, and diminution of both rhythmic and intervallic elements, together with their overlapping and dislocation: each contains a motivic rhythm whose repetitions (either exact or diminished/augmented) interact with combinations of the intervallic repetitions to give the music a 'basic shape'. This initial exploration of the construction of *Grundgestalten* in works from different periods of Schoenberg's life affirms Rufer's definition of *Grundgestalt* as consisting of the 'firm connection of one or more motifs and their more or less varied repetitions'<sup>46</sup> and also upholds his belief that Schoenberg's concept was, and is, applicable 'to all types of music, based upon the interdependence between a musical idea and the technique of *developing variation*'.<sup>47</sup>

## 2.6 The *Grundgestalt* and changing harmonic context

Having established the physical manifestation of the *Grundgestalt* in Schoenberg's music, it is necessary to address the issue of its function within - and relationship to - the changing harmonic context reflected by Schoenberg's renunciation of a tonal centre as the fundamental organising force in his later music.

In a tonal context, the organisation of a work is reflected by the

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<sup>46</sup> Rufer, *Composition with Twelve Notes*, p.vii.

<sup>47</sup> Phipps, 'A Response to Schenker's Analysis of Chopin's Étude', p.546.

hierarchical relationship of the events in the work to a centrally established reference, namely the tonic. In a non-tonal context there exists a potential for anarchy which, by definition, is unintelligible, illogical and unstructured. Schoenberg's response to the loss of tonality was the development of the twelve-tone method which replaced, in his view, the 'no longer applicable principle of tonality'. The new context here was to be provided by the 'continually rotating cycles of all twelve semitones in an order (changing from piece to piece), which would probably have been suggested by a motivic or melodic shape shorter or longer than itself, but which would be to an extent independent of that shape and more capable of projecting and supporting a musical form of the most substantial proportions'.<sup>48</sup>

Schoenberg has referred to the 'basic set', or note row, as *Grundgestalt*,<sup>49</sup> and also states in 'Composition with Twelve Tones (1)':

The basic set functions in the manner of a motive. This explains why such a basic set has to be invented anew for every piece. It has to be the first creative thought. It does not make much difference whether or not the set appears in the composition at once like a theme or a melody, whether or not it is characterized as such by features of rhythm, phrasing, construction, character, etc.<sup>50</sup>

Schoenberg's equation of basic set with *Grundgestalt* poses a problem. On the one hand, if the basic set is the *Grundgestalt* of a work, then it *must* manifest itself in a concrete way at the beginning of a piece as the 'first creative thought'. On the other, the fact that it does not matter to Schoenberg whether or not the set appears in the composition 'at once' in a

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<sup>48</sup> A. Whittall, *Music since the First World War*, (London, 1977), p.121.

<sup>49</sup> A. Schoenberg, *Structural Functions of Harmony*, (London, 2nd ed., 1969), p.193.

<sup>50</sup> A. Schoenberg, *Style and Idea*, p. 219.



melodic form suggests that he considers the basic set a pre-compositional element.

If the *Grundgestalt* of a twelve-tone work is the 'concrete manifestation' of the basic set, and if the basic set provides the harmonic context for the motives of that *Grundgestalt*, then the logical conclusion to draw is that the *Grundgestalt* itself is the autonomous source (and controller) of *all* elements, motivic, harmonic, structural. The note row is the set of conditions that provides the context for a twelve-tone work. The row itself is characterless, however - devoid of everything except abstracted intervallic relationships - and it is therefore necessary to mould it into motives that form the *Grundgestalt* of the work. In this sense the *Grundgestalt* is derived from the row as an animation of the characterless pitch-classes. This 'animation' serves to separate the *Grundgestalt* from the row itself, and therefore from the harmonic context created by the intervallic relationships inherent in the row. In a tonal context, the *a priori* set of conditions for structural organisation - that is, tonality - exists in the *same* manner from work to work. Here, the *Grundgestalt* is constructed *against* the backdrop of a pre-determined harmonic context rather than *from* the context itself. In both contexts the *Grundgestalt* performs the same function, namely to be the motivic source for all subsequent material.

The animation of the *Grundgestalt* from the row allows Schoenberg to create thematic motives that have distinct contours and rhythms presented, in general, at the beginning of the work. Schoenberg's *Haupt-* and *Nebenstimme* indications assist the tracing of thematic motives in the melodic lines through his twelve-tone music. The distinctive rhythm and contour of a motive (and the *developing variation* thereof) and the textural context in which it is presented, however, enables a judgment of the

thematic importance of a group of notes to be made without obligatory reference to the *Haupt-* and *Nebenstimme* signs, in a similar way to those conditions in a tonal work.



## CHAPTER THREE: THEORY

### 3.1.1 The Motive: Historical/Analytical Perspective.

It is without doubt that the theoretical writings of Arnold Schoenberg have had a significant influence on analysts in this century. The bases for these analysts' ideas, however, stretch further back beyond Schoenberg to writers like A. B. Marx (1795-1866), whose analytical theories centre on the organic process of musical discourse: one germinating and growing from a starting point which he called the 'Motiv'.<sup>1</sup> A further influence came from the direction of Gestalt psychology. Christian von Ehrenfels, an early Gestalt psychologist, developed the idea of varying levels of perception which were, in turn, used by Arnold Schering who formulated in his analyses of 14th-century madrigals the basis of what present-day analysts call *reduction*, whereby he uncovered 'melodic kernels' and 'cells' (two terms which Rudolph Reti later adopted). Schoenberg's view of music as being essentially organic concurs with Marx and Heinrich Pestalozzi (1746 - 1827, whose outlook on man's development as being 'organic' profoundly influenced Marx) and it was in his book *Fundamentals of Musical Composition*<sup>2</sup> that Schoenberg laid down his theories regarding musical construction and organisation. It is from this starting point that we shall trace the concept of the motive and begin to formulate a theory.

### 3.1.2 Schoenberg and the Motive

The concept of motive both as the ideas present in a composition and as the pervasive element within the compositional process was an intrinsic part of

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<sup>1</sup> I. Bent, 'Analysis.' In *The New Grove Handbooks in Music* (London, 1987), p.29.

<sup>2</sup> Schoenberg, *Fundamentals of Musical Composition*, ed. Strang and Stein (London, 1967). Hereinafter referred to as *Fundamentals*.

Arnold Schoenberg's musical doctrine. It was his belief that any musical composition should adhere to the rules of logic and coherence as he conceived them: a work grows out of the initial idea through a process of logical development, or *developing variation*, without which there would be no coherent form or unity. As Schoenberg himself remarks:

Even the writing of simple phrases involves the invention and use of motives, though perhaps unconsciously. Consciously used, the motive should produce unity, relationship, coherence, logic, comprehensibility and fluency.<sup>3</sup>

Whether or not his term motive is inherited from Marx, Schoenberg was certainly influenced by the idea of the growth process. Marx used the term for the starting point of a work, a tiny unit of two or more notes which serves as 'the seed or sprout of the phrase out of which it grows'.<sup>4</sup> What exactly constitutes a motive in Schoenberg's terms is annotated in *Fundamentals*. In Chapter Three, entitled 'The Motive', Schoenberg divides the motive into three features: rhythm, pitch succession (intervals), and shape (or contour).

Any rhythmicised succession of notes can be used as a basic motive, but there should not be too many different features. Rhythmic features may be very simple, even for the main theme of a sonata.<sup>5</sup>

A motive need not contain a great many interval features. The main theme of Brahms's Fourth Symphony, though containing sixths and octaves, is, as the analysis shows, constructed on a succession of thirds.

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<sup>3</sup> Schoenberg, *Fundamentals*, p.8.

<sup>4</sup> Bent, loc. cit.

<sup>5</sup> Schoenberg, *Fundamentals*, p.11. Here Schoenberg uses quotations from Beethoven's *Piano Sonata, Op.14 no.1* and the *Fifth Symphony*.



Often a contour or shape is significant, [i.e., repeated movement in one particular direction] although the rhythmic treatment and intervals change.

Every element or feature of a motive or phrase must be considered to be a motive if it is treated as such, i.e. if it is repeated with or without variation.<sup>6</sup>

The last of these paragraphs is the most important, because Schoenberg implies that motivic repetition and variation is a process that can stem from any of the above divisions (rhythm, interval, contour) either separately or simultaneously. Changes, therefore may be singular or combined. Schoenberg also stresses the need for simplicity, or rather, an avoidance of complexity, in order that such processes of change can be seen and heard to develop in an 'organic' fashion. So the development of a motive can stem from any one of the above three attributes (or divisions), each in itself being classed as a motive. The three attributes, pitch, rhythm, and shape, are at the same time independent and co-existent. They cannot exist separately, yet they can develop separately.

In the same chapter of *Fundamentals*, Schoenberg further expounds his idea of the motive and comments that a work's form ('final impression') is not determined by the motive's shape, but by its usage:

The *motive* generally appears in a characteristic and impressive manner at the beginning of a piece. The features of a motive are intervals and rhythms, combined to produce a memorable shape or contour which usually implies an inherent harmony. Inasmuch as almost every figure within a piece reveals some relationship to it, the basic motive is often considered the 'germ' of the idea. Since it includes elements,

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<sup>6</sup> Ibid., p.9.

at least, of every subsequent musical figure, one could consider it the 'smallest common multiple'. And since it is included in every subsequent figure, it could be considered the 'greatest common factor'.

However, everything depends on its use. Whether a motive be simple or complex, whether it consists of a few or many features, the final impression of the piece is not determined by its primary form. Everything depends on its treatment and development.....

A motive is used by repetition. The repetition may be exact, modified or developed. *Exact repetitions* preserve all features and relationships. Transpositions to a different degree, inversions, retrogrades, diminutions and augmentations are exact repetitions if they preserve strictly the features and note relations.

*Modified repetitions* are created through variation. They provide variety and produce new material (motive-forms) for subsequent use.

Some variations, however, are merely local 'variants' and have little or no influence on the continuation.

Variation, it must be remembered, is repetition in which some features are changed and the rest preserved. All the features of rhythm, interval, harmony and contour are subject to various alterations. Frequently, several methods of variation are applied to several features simultaneously; but such changes must not produce a motive-form too foreign to the basic motive. In the course of a piece a motive-form may be developed further through subsequent variation. [Schoenberg's *italics*]<sup>7</sup>

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<sup>7</sup> Ibid., p.9.



Here Schoenberg specifically identifies rhythm, interval, harmony and contour as the features of the motive. Later in the same chapter of *Fundamentals* he describes possibilities for variation of these features. At this point, it would be appropriate to survey the most recent writings before drawing conclusions from Schoenberg, in order to lay a broader foundation for the establishment both of criteria for the evaluation and selection of a motive, and of a framework for the evaluation of their progression/succession.

### 3.1.3 Other Writers

There are few, if any, motive-related analyses that neglect to quote one or more of Schoenberg's statements as a starting point for discussion. Of particular interest to this study are the writings of Severine Neff,<sup>8</sup> Janet Schmalfeldt,<sup>9</sup> and Jack Boss,<sup>10</sup> three writers - discussed earlier in this study - who have worked in the area of *Grundgestalt* and *developing variation* with specific reference to music of the Second Viennese School. Of the three, Boss is the first to attempt to apply the concepts to an atonal work, *Seraphita*, the first of Schoenberg's *Four Orchestral Songs*, Op.22. Not only does each merit consideration with regard to the present discussion of the motive, but since analytical method, organisation of material, and general emphasis in these articles differ considerably, their contribution to the present inquiry warrants further attention.

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<sup>8</sup> S. Neff, 'Aspects of Grundgestalt in Schoenberg's First String Quartet, Op.7', *Theory and Practice* 9 (1984), pp.7-56; see also Chapter 1, p.19 and Chapter 2, pp.27ff. of this study.

<sup>9</sup> J. Schmalfeldt, 'Berg's Path to Atonality: The Piano Sonata, Op.1' in *Alban Berg: Historical and Analytical Perspectives*, pp.79-109; see also Chapter 1, p.19 and Chapter 2, p.29ff. of this study.

<sup>10</sup> J. Boss, 'Schoenberg's Radio Talk and Developing Variation in Atonal Music', *Music Theory Spectrum* (1993), p.125ff. See also Chapter 1, p.19 of this study.

Severine Neff's preliminary article, entitled 'Aspects of Grundgestalt in Schoenberg's First String Quartet, Op.7', discusses the opening of the quartet in conjunction with sketches showing Schoenberg's conscious preoccupation with the *Grundgestalt*. She concludes that for Schoenberg 'coherence in music can depend upon nothing other than motives, their transformation and development'.<sup>11</sup> Her analysis is structured around 'the reshaping of the basic shape in light of several theoretical concepts developed by Schoenberg: monotonicity, regions, substitutes, transformations, vagrants and liquidation'.<sup>12</sup>

The article attempts to 'provide analytic commentary on the opening thirty bars of the Quartet, defining and tracing the *Grundgestalt*,' but there are a number of aspects by which I remain unconvinced.

The first part of her article examines the role of the *Grundgestalt* and traces its development in the first 13 bars. The second part examines the implications of changes in the draft manuscripts. Her delimitation of motives in the *Grundgestalt* is based on two criteria: 1) overlapping, where single notes act as a connection for two motives; 2) each has a different characteristic interval.<sup>13</sup> Example 3.1a shows Neff's example 2 once more, in conjunction with my own motivic interpretation of the *Grundgestalt* (Ex. 3.1b).

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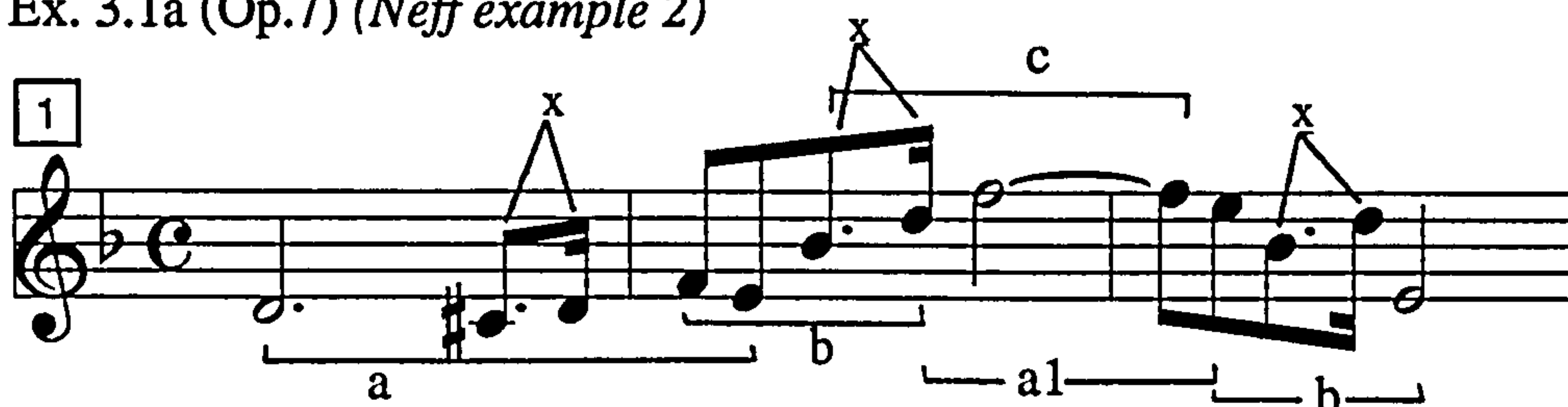
<sup>11</sup> Neff, op. cit., p.12.

<sup>12</sup> Ibid., p.13.

<sup>13</sup> Ibid., p.13. See also Neff's quotation of Rufer on pp.12-13.



Ex. 3.1a (Op.7) (*Neff example 2*)



Ex. 3.1b (Op.7)



It can be seen that they contrast considerably. My selection is based on pitch/interval/rhythm/shape repetition rather than just a characteristic interval. It is also due to the ultimate ramifications of the motivic shapes within the work. The first interval that is repeated at pitch (-class) is the minor 3rd D - F in bar 2. This point is the beginning of a succession of repetitions of the pitches D, F, E, and B $\flat$ , shown in paradigmatic form in example 3.2.

Ex. 3.2 (Op.7)

bars 1-4 (vln1)



My delimitation of motives Ab1 - 4 straddle the first three paradigmatic

statements of these pitches (D, F, E, B $\flat$ ) and corresponds to Rufer's motivic overlapping in a different manner to Neff's since, rather illogically, she overlaps different intervallic and rhythmic constructs. Whilst my own delimitations may also seem illogical (following no particular pattern) it can be seen that two of them (Ab1 and Ab3) do not overlap and are the same (with regard to pitch-class and interval content), and the other two overlap the repetitions 2 notes + 2 notes (Ab2), and 3 notes +1 note (Ab4), as well as meeting at the top pitch f' (thereby overlapping *à la* Neff).

The initial interval d - f is not subject to as much pitch/rhythm repetition as the other intervals (minor 2nd, tritone and major 3rd). Example 3.3 shows more clearly the way in which Schoenberg builds up the opening phrase from these pitches.

Ex. 3.3 (Op.7)  
bars 1-5 (vln 1)



With regard to the actual varying of the motive (the term *developing variation* is not used), Neff outlines the problem of linking a subsequent motive-form to the correct source-motive or *Urmotiv*.<sup>14</sup> Her solution to this is to categorise each motive-form within the same 'motivic class' providing it fulfils one of the following:

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<sup>14</sup> Ibid., pp.17-18.



[Preservation of] 1) at least three pitch classes of the motive in the *Grundgestalt*, 2) interval content unique to the original motive, 3) the interval content of the original motive in any order, or 4) if they state the pitch content of the original motive (or part of it) in terms of chromatic substitutes.<sup>15</sup>

Unfortunately, this does not provide a solution to the problem. Applying Neff's criteria to the hypothetical example she gives still results in the possible dual parentage of the derived motive C-F-G.<sup>16</sup> Linking it to the first *Urmotiv* (C-E-G) fulfils criterion 4) (Ex. 3.4a); linking it to the second (G-A-D) fulfils either number 3), or indeed number 2), if one takes the view that retrograde inversion does not alter the interval content unique to the original motive (Ex. 3.4b).

Ex. 3.4a



Chromatic Substitute: fulfils criterion 4

Ex. 3.4b



Identical Interval Content, ordered and unordered: fulfils criteria 2 and 3

Consequently, Neff's selection of the three motives 'a', 'b' and 'c' as her *Urmotive* is dubious, particularly when comparison between 'b' and 'c' is made. It is possible to construe motive 'b' as a chromatically altered motive 'c' (or vice versa). Thus, it is not unreasonable to suggest that motive 'c2' in the first half of bar 2, for instance, is actually derived from 'b', rather than 'c' (Ex. 3.5).

<sup>15</sup> Ibid., p.18.

<sup>16</sup> Ibid., p.18. Neff states here that the 'correct' derivation of the variant C-F-G from either of the *Urmotive* C-E-G and G-A-D, can be decided by employing her criteria. However, as my examples 3.4a and b show, the criteria fail to fulfil the decision-making process, since *both Urmotive* can *still* be shown to be 'correct' sources.

Ex. 3.5 (Op.7) (part of Neff example 4)

2

Vla

c2 b2

Inv. = Altered = b

Or

Altered = c

Further on, Neff suggests that the choice of substitute notes in the first two bars (the c# in violin 1, the g# and b# in viola) reflects aspects of the large-scale tonal plan. Indeed the three keys she cites as a result of the associations (D major, A major and C# minor) are 'significant key areas in the tonal plan'. However, since she does not account for the other significant key areas in the work, her statements undermine her argument. A more comprehensive view might be that shown in example 3.6 (clear noteheads denote major keys; filled noteheads denote minor keys).

Ex. 3.6 (Op.7)

Scherzo dev.

Scherzo episode

Principal Exposition and Development

Slow movt.; Rondo

Trio; Slow movt. second theme

Scherzo second theme; A57 recap. at L52

bar 14ff.

Slow dev.; Rondo episode

Principal Exposition: Secondary theme

Scherzo theme; Principal theme at L38

It can be seen from the my interpretation that a symmetrical key structure centred around D, fanning out through alternate semitones and tritones, reveals relationships of a more logical kind: the keys below the centre in



the example are associated with the Principal material and the first 'Part' of the Quartet, whereas those above on the whole pertain to the Secondary material, the secondary part of the Scherzo (that is, the Trio), and the second 'Part' of the Quartet. The overwhelming importance of the two interval relationships of the tritone and the semitone will also become apparent in the motivic analysis later in this inquiry. Neff's comments regarding pitch substitution and its association with the 'large-scale tonal plan' are, to my mind, far too selective. Her account of the C# and E in bar 8 completely disregards the other substitute notes in the same passage. The C# is employed as both a leading note to a key as well as a key centre itself in these pitch substitute/key associations, further weakening her argument.<sup>17</sup>

Part two of Neff's article examines the sketches. Of particular interest is the 'verwenden' sketch in which Schoenberg marks the rising alternate fourth/thirds in the 'cello (bars 10 - 11) as well as filling in one of the thirds to create a scale. Neff's first possibility for the use of this is what she calls the transition to the subordinate group at bar C30 ff.<sup>18</sup> Again her analysis is incomplete, perhaps deliberately so, but her omissions need restoring. The 'transition to the subordinate group' first appears at rehearsal letter A. Tracing the rising fourth entries G - C (violin 2), E - A (viola), C# - F# ('cello) and finally B - E (violin 1), reveals a cyclic pattern. This is then transposed at the next set of entries (beginning at A14, violin 2) down a tone to F. The three possible cycles of alternate fourths and thirds are thereby completed (Ex. 3.7). This is finally developed into the secondary material at A71, which is anticipated at A61, the first time that Schoenberg use his 'verwenden' idea. The place cited by Neff (C30 ff.) does contain the rising fourth figures, being a compression

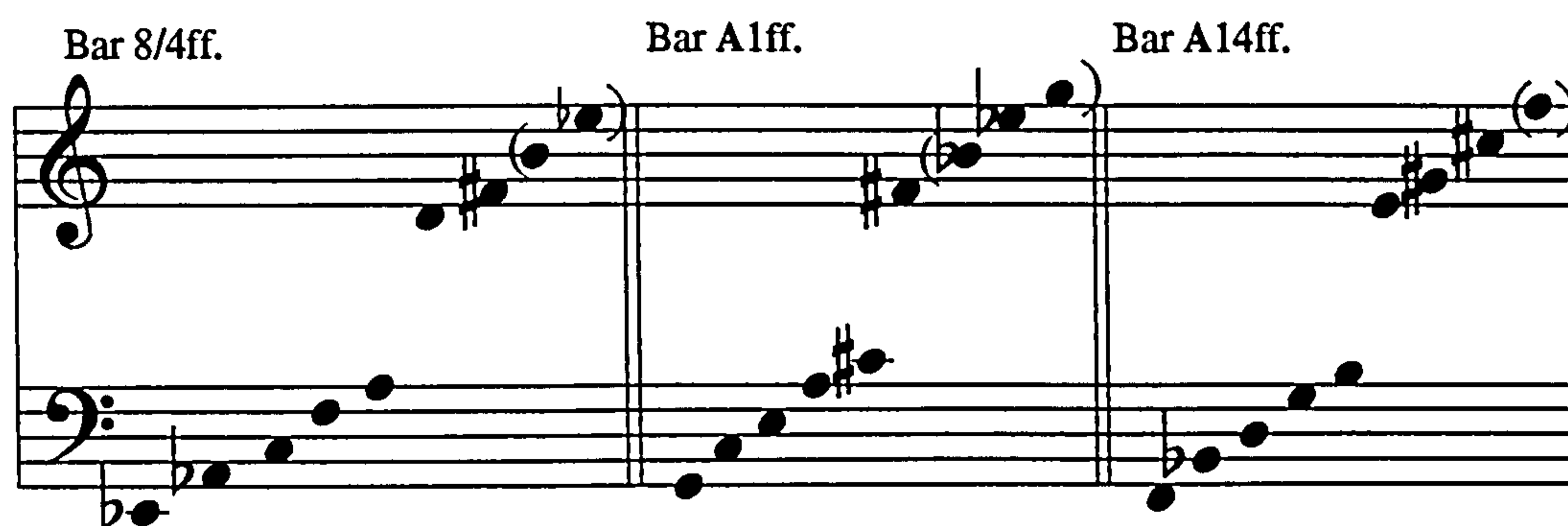
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<sup>17</sup> Ibid., p.24. Further discussion of these intervallic relationships is found on p.203ff.

<sup>18</sup> Ibid., p.45.

of the fugato entries of A1 ff. The pattern includes all three cycles here, settling on the E $\flat$  cycle and thereby linking the original at bar 8/4 with the transition section. Further discussion of this aspect can be found in chapter 5.1.

Ex. 3.7 (Op.7)



Preliminary as it may be, the Neff article has flaws, some of which have been 'modified' by what are perhaps more viable alternatives in the above analytical comments. The remaining problem of motivic derivation will be addressed in subsection 3.2, in light of the other two writers' work.

In her essay on Berg's Piano Sonata, Op.1, Janet Schmalfeldt first considers the 'generative components of the *Grundgestalt*' before launching into analytical discourse on the first eleven bars and finally surveying the exposition of the Sonata. Her proposed *Grundgestalt*, the opening phrase, leads her to the delimitation of three melodic motives, which has already been discussed in Chapter 1. Schmalfeldt considers not only the melodic element of the three motives from which 'virtually all the melodic materials of this work will be generated by means of *developing variation*', but also other functions of the *Grundgestalt* as follows: the harmonic implication of each motive; and the harmonic content of the first phrase which 'establishes the essential harmonic vocabulary of the complete work';



the initial dotted rhythm; the harmonic progression of the first phrase which 'predicts the pathway by which the Sonata will unfold in the broad formal sense.'<sup>19</sup>

Having established these 'generative components' (successfully, on the whole), Schmalfeldt sets about investigating 'some of the manifestations of Berg's *developing variation* procedure'. Before doing so, she makes a statement encapsulating her analytical intentions, to which any successful attempt at demonstrating the motivic processes of *developing variation* must undoubtedly adhere.

..the multifarious techniques of *developing variation* are at the service of a larger process, or pathway, through which the work as a whole unfolds chronologically: along that path, each musical event arises organically and logically from what precedes it, that is, each event affects the nature and function of the next event. Therefore, while it might be of interest to trace all isolated events of the movement back to their source within the *Grundgestalt*, this activity in and of itself misses the point; the point must be to follow the pathway that leads from the elements of the *Grundgestalt* towards residues of these that in turn yield new motive forms and distinctive formal regions....[T]o interpret each successive event...would require lengthy discourse...moreover, for the analyst to enter the path at any point other than where it begins would be to neglect the aspect of process just described.<sup>20</sup>

Due to the necessary brevity of her article Schmalfeldt works in detail only on the first 11 bars, requesting the reader to 'accept these as representative of the motivic and voice-leading techniques in the work as a whole.' In a mostly convincing account she discusses the motivic content of bars 5 - 11

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<sup>19</sup> Schmalfeldt, op. cit., pp.85 & 90.

<sup>20</sup> Ibid., p.98.

stemming from the opening four-bar 'stable' *Grundgestalt*, and the 'destabilizing' of melodic, rhythmic, and harmonic function which differentiates these bars from the *Grundgestalt*. Schmalfeldt does not, on the whole, concern herself with 'motivic' *developing variation*. Rather, her analysis is more oriented to the harmonic 'domain': those harmonies generated or implied by the motives of the *Grundgestalt* (in this sense they are 'motivic') and the way in which these harmonic constructs of minor-seventh structure, whole-tone (hexachord), half-diminished 7th structure and the sonority '4-16' (using Allen Forte's set nomenclature) interact throughout the work. She argues that Berg's distinctive harmonic language stems from the opposition of these atonal and whole-tone harmonies, initiated by the *Grundgestalt*, to the background tonal plan of the work. Where she does mention the motivic domain, it is to say that *developing variation* plays its most overt role therein.<sup>21</sup>

Schmalfeldt's earlier discussion of the three motives served ostensibly to outline those features which will be subjected to *developing variation*. These she summarises on pages 96 - 97 of her article, which I have further summarised below:

- motive 'a'
1. Transference of dotted rhythm onto other materials.
  2. Generates 'head-motives' of subsequent thematic regions.
  3. Its intervals serve as harmonic component [fourths].
  4. It is treated as an unordered pitch-class collection [3-5].

- motive 'b'
1. Its descending contour is treated as a constant.

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<sup>21</sup> Ibid., p.107.



2. Its intervals serve as a harmonic component [whole-tone].

motive 'c     1. becomes the insignia for descending and ascending  
chromatic progression.<sup>22</sup>

Bars 5 - 11 comprise fragmentary and complete repetitions of the motive-forms, rather than any development as such. Schmalfeldt's discussion of the melodic motivic processes comes at the end of her article, where she expresses the need for new motive-forms in order to create structural delimitation.<sup>23</sup> Schmalfeldt does not categorise the variations that occur to the three motives in any specific way. One might, however, deduce from her statement about the 'head motive of the first subordinate theme' (bar 30ff.), what she would consider as the most remote of the motive-forms.

Here Berg reorders the pitches of the transposed motive *a* and interlocks this form with an inverted form of the same. A new contour results, but of course the dotted rhythm helps to signal the long-range connection back to motive *a*.<sup>24</sup>

Schmalfeldt's article is relevant to the present inquiry in view of the fact that her discussion of *developing variation* is generally *confined* to the developing harmonic syntax brought about by the harmonic implications of the *Urmotive* in the *Grundgestalt*, through which she reveals Berg's path to atonality. Whilst she does not purport to have been comprehensive (as her conclusion states), it is nevertheless important to regard the broader implications of her article, if only to safeguard against the insularity of which she is, ironically, a victim.

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<sup>22</sup> Ibid., p.96-97. A full illustration of these points would demand inordinate space here. The reader should refer to the remainder of Schmalfeldt's article (pp.97 - 109).

<sup>23</sup> Ibid., p.108.

<sup>24</sup> Ibid., p.108.

The third writer, Jack Boss, begins his article 'Schoenberg's Op. 22 Radio Talk and Developing Variation in Atonal Music' with a close scrutiny of Schoenberg's writings on the motive and variation in tonal music.<sup>25</sup> As his title suggests, however, he argues that *developing variation* should not be regarded as a process unique to tonal music to which 'almost all recent scholars who invoke *developing variation* apply it exclusively'. This is closely sympathetic to the current inquiry, which seeks to apply the concepts not only to atonal but also to twelve-tone music. He concludes the first part of his article by summarising the 'features' of a motive:

a motive (or phrase that functions motivically) has three features in its interval category - its pitch succession, its harmonic succession, its tonal context; the rhythmic category includes its duration succession and its metrical context. If we want to measure how remote a variation of one of these features renders a form from its original, we must consider the aspects of each feature, which are more abstract ways of describing the feature.<sup>26</sup>

With this in mind, Boss proposes an analytical method to demonstrate motivic variation in no more than nine bars of music, limiting himself to the melodic aspect since 'limiting the scope of atonal *developing variation* to melodic variations will make the subject easier to introduce'.<sup>27</sup> Using Schoenberg's analytical remarks in the 'Radio Talk', Boss creates four categories for the '*Seraphita*' motive and its transformations, summarised below with the number of forms in brackets :

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<sup>25</sup> J. Boss, 'Schoenberg's Radio Talk and Developing Variation in Atonal Music', *Music Theory Spectrum* (1993), p.125ff.

<sup>26</sup> Ibid., p.128.

<sup>27</sup> Ibid., p.131.



Category A:	Unordered adjacent pitch intervals	(8)
Category B:	Octave displacement of A-forms	(24)
Category C:	Pitch reordering of A-forms	(16)
Category D:	Interval expansion of A-forms	(24)

He later adds:

Category C2:	Octave displacement of C-forms	(48)
Category D2:	Octave displacement of D-forms	(72)

Boss's analysis thoroughly documents every overlapping group of three or four notes in a bid to demonstrate the increasing remoteness of each from the *Urmotiv*. For his melodic analysis, he presents the motive and subsequent motive-forms as a series of positive and negative integers: positive and negative symbolising upward and downward movement in pitch and the number representing the distance in terms of semitones, e.g.,  $\langle +3, -1, +2 \rangle$  could indicate the pitch-shape F $\sharp$ -A-A $\flat$ -B $\flat$  (as in his example 12) or any transposition thereof (Ex. 3.8).<sup>28</sup>

Ex. 3.8 Op.22 'Seraphita' (*part of Boss Example 12*)

$\langle +3, -1, +2 \rangle$

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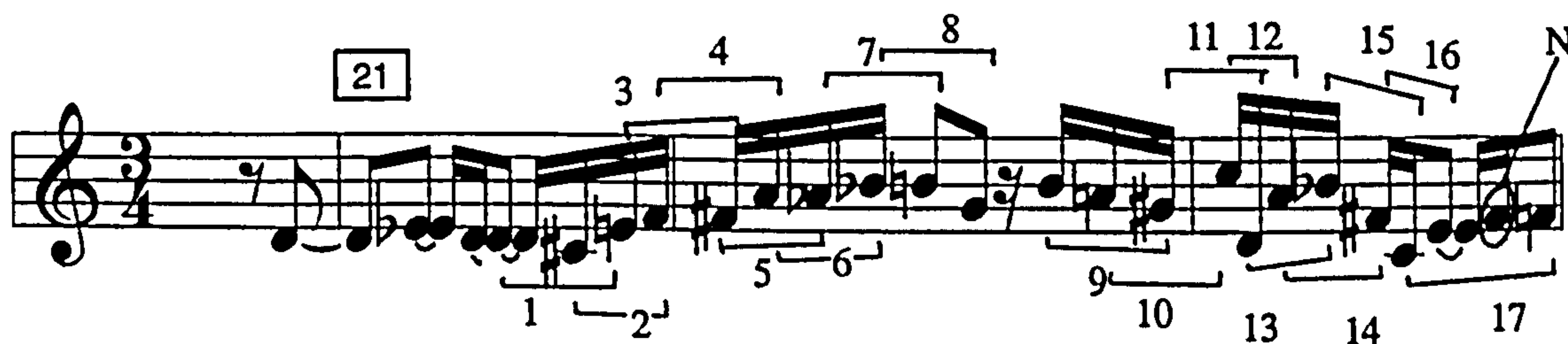
<sup>28</sup> Ibid., pp.140.

Although his method in principle is as convincing as it is fascinating, the conclusions he draws are very tendentious, given the evidence he presents. His summary of tonal *developing variation* serves as a basis for his exploration of this feature in atonal music:

Tonal *developing variation* affects various kinds of motives, as well as phrases. Specific variations change intervallic and rhythmic features of a motive or phrase such as pitch succession, harmonic succession, tonal context, duration succession, or metrical context. Along with the feature, each variation changes aspects of the feature, and the number of aspects changed serves as an index of remoteness from the original motive. Two considerations govern the successions of motive-forms produced by variation: later forms should fulfill the implications of earlier forms, and the succession should delimit a segment of the musical form and enable that segment to perform its function within the form.<sup>29</sup>

Boss presents three motivic analyses of three-interval overlapped motives. The first is the music of the second and third lines of the first stanza of the German translation of the poem, the second analysis presents the first line of the stanza, and the third presents the last line. These are reproduced in example 3.9.

Ex. 3.9 Op.22 'Seraphita' (part of Boss Example 12)



<sup>29</sup> Ibid., p.130.



Ex. 3.9 Op.22 'Seraphita' (part of Boss Example 13)



Ex. 3.9 Op.22 'Seraphita' (part of Boss Example 14)



With these three analyses, Boss attempts to substantiate the claim that the increasing remoteness of the motive-forms 'illustrates the two traits of tonal *developing variation*: it fulfills the implications of its first forms, and it delimits and characterizes a segment of the musical form'.<sup>30</sup> However, there are several points by which I remain unconvinced. Firstly, his view that the motive-forms increase in remoteness is not, in my opinion, borne out by the analyses. For example, in the motivic succession of his example 12 (Boss, p.141), forms 2 and 3 are 'overlappings of C and D forms followed by pitch reorderings'. These motive-forms are more remote than forms 4 - 8 inclusive as well as form 13. His earlier analysis of two-interval motive-forms yields a more convincing succession, although this is undermined by the presence of non-motivic forms. The non-motivic forms are eradicated by the progression to three-interval motive-forms, with the exception of one, which Boss avoids in both two- and three-interval analyses. The second F# in bar 23 is identified as a neighbour note due to its ornamentation of a 'Category-D form'  $\langle +4, +1 \rangle$  and its contextually

<sup>30</sup> Ibid., p.141.

shorter duration. This explanation conveniently circumvents the problem that inclusion of the F# in both two- and three-interval analyses creates a non-motivic form.

Secondly, Boss asserts that because forms 1 and 4, which are overlappings of different A forms, share the same set-class (4-3), this 'suggests that overlappings of more remote motive-forms are contained within the same total interval-class content. Forms 7 and 8 corroborate this suggestion: they bring to the fore as consecutive intervals ordered pitch intervals that existed in Forms 1 and 4 only implicitly, in the sense that they were not consecutive.'<sup>31</sup> Since 'Category-C forms' represent reorderings of 'Category-A forms', Boss's assertion that one form 'suggests' another is specious. In one sense, Boss's entire analysis is evidence enough to confirm that the subsequent motive-forms fulfil the implications of the first form(s). However, it is not necessarily increasing remoteness that confirms this. Unquestionably forms 7 and 8 in his example are related to forms 1 and 4 by set-class, but to use this as an example of implication fulfilment is unproductive, since similar situations do not occur in the analyses of the other two phrases.

Thirdly, with regard to the second of the considerations, i.e., delimitation of a segment of the musical form, Boss asserts that the increases and sudden decreases in motivic remoteness that occur between the music of lines 1 and 2, as well as between lines 3 and 4, thereby delimit the musical structure and reflect the *a b b a* rhyming scheme of the stanza. His implausible explanation for the sudden plunge in remoteness of forms 2 and 3 in the second phrase weakens this assertion. Furthermore, he treats phrases 2 and 3 (i.e., lines 2 and 3) as one structural entity, but imbricates within each of the two phrases, avoiding the overlapping of the end of the second phrase

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<sup>31</sup> Ibid., pp.141-142.

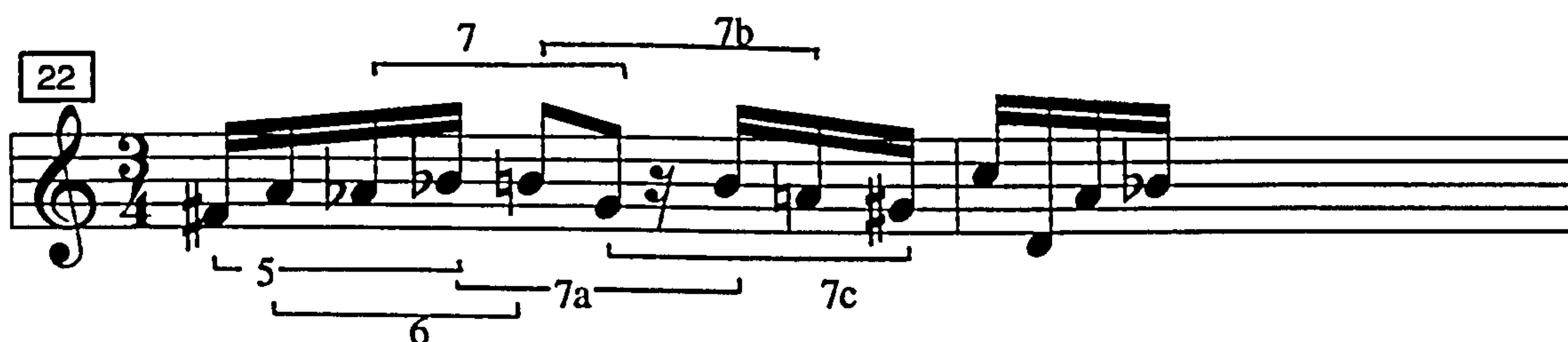


with the beginning of the third. Imbrication of the phrase divide yields three more motive-forms as shown in example 3.10, labelled 7a, 7b, and 7c. The three motive-forms yield the following results:

- 7a     $\langle +1, -4, +4 \rangle$       Overlapping of A and C forms  $\langle -1, -3, +4 \rangle$  with pitch re-ordering
- 7b     $\langle -4, +4, -2 \rangle$       Overlapping of A and C forms  $\langle -3, +1, +2 \rangle$  with interval expansion to  $\langle -4, +2, +2 \rangle$  followed by pitch re-ordering
- 7c     $\langle +4, -2, -1 \rangle$       Overlapping of C and D forms

The inclusion of pitch re-orderings and interval expansion in these motive-forms further weakens Boss's case for increasing remoteness as well as impairing his argument of structural delimitation.

Ex. 3.10 (Op.22 'Seraphita')



Despite some misgivings about Boss's conclusions, of the three writers considered here, his systematic method is the most useful in the current inquiry. Such a microscopic tendency borne out of necessity has its shortcomings, however. It is capable of demonstrating motivic processes only across a short time-span due to its reliance upon excessively detailed analytical results.

### 3.2 Criteria for the Evaluation and Selection of a Motive

The foregoing discussions of Schoenberg, Neff, Schmalfeldt, and Boss, have - to an extent - outlined the hazards of presenting analytical discussions that involve the *Grundgestalt*, and *developing variations* of its *Urmotive*. It is possible, however, to draw conclusions from these writers that aid the decision-making involved in the delimitation of motives of a *Grundgestalt*.

Schoenberg is, of course, the one from whom the other writers derive their understanding of motive and motive-form. His detailed account of the motive outlined above is the obvious source both for them and for this inquiry. Each of his categories of rhythm, interval (content), contour and harmony shall therefore be taken separately and discussed with reference to the way in which the more recent writers employ them in the delimitation of motives in their analyses.

Any rhythmicised succession of notes can be used as a basic motive, but there should not be too many different features.<sup>32</sup>

Neff delimits her motives in such a way that the three distinct *Urmotive*, a, b, and c, each contain the same dotted rhythmic figure dotted quaver - semiquaver, which she labels 'x' and which, she states, 'integrates the rhythmic and pitch elements in an organic whole'.<sup>33</sup>

Schmalfeldt draws the reader's attention to the dotted rhythm in her motive *a*, which separately influences other motive-forms by transference, and 'serves as the pervasive rhythmic motive throughout [the work]'.<sup>34</sup>

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<sup>32</sup> Schoenberg, *Fundamentals*, p.9 (cited earlier in this study in fuller context on p.60).

<sup>33</sup> Neff, op. cit., p.13.

<sup>34</sup> Schmalfeldt, op. cit., p.90.



Boss does not discuss the rhythmic motive in his article, although he uses duration as a criterion for regarding a note as ornamental, and because the 'even streams of sixteenths in both [phrases] blur durational clues to segmentation' he overlaps motive-forms note by note for want of a better approach.

A motive need not contain a great many interval features.<sup>35</sup>

It could be said that interval content is the most important element for all three writers. Neff actually bases her motivic delimitation on each containing a characteristic interval. Whilst Schmalfeldt does not explicitly state this, her motives all carry a distinct harmonic implication based on their melodic interval content. The 'interval structures' are the prime focus in Jack Boss's work. His detailed work integrates intervallic content, harmonic content and contour.

Often a contour or shape is significant...<sup>36</sup>

Neff entirely disregards contour as an explicit motivic element. Contour is a definitive feature of Schmalfeldt's *Urmotive*. The ascending contour of *a* is counterbalanced by the descending one of *b*, and her motive *c* performs the dual function of upward and downward semitonal movement.

In consideration of the preceding discourse, the criteria for evaluation and selection of a motive can now be assembled. It is clear that the three most important elements in the delimitation of a motive are those of rhythm, interval content, and shape (or contour). Each element in turn is a requisite for at least two of the writers. Therefore, it is safe to assume that

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<sup>35</sup> Schoenberg, op.cit., p.9.

<sup>36</sup> Ibid., p.9.

an analysis which hopes to demonstrate the motivic processes in several works must concern itself with these three primary elements. Before undertaking such a task, it will be necessary to construct a theoretical framework for the evaluation of motivic succession, that is, a framework for the demonstration of the process Schoenberg and others have called *developing variation*.

### 3.3 Framework for the Evaluation of Motivic Progression<sup>37</sup>

The three writers with whom the preceding subsection was concerned have, to varying extents, discussed the *developing variation* of a *Grundgestalt* in terms of motivic processes in the music of Schoenberg and Berg. Both Schmalfeldt and Boss state the term *developing variation* explicitly before broadening or narrowing their focus. Boss categorises the developments that occur to a motive's pitch/interval element in general before applying it to *Seraphita*, whereas Schmalfeldt's conclusions are drawn from the elements of the motives in the specific *Grundgestalt* from which Berg constructs his Sonata. Neff does not use the term *developing variation* at all. Her article discusses other concepts of Schoenberg that 'reshape the basic shape', although she does explain her strategy for motivic classification (see pp.64-67 above). The intentions of both Boss and Schmalfeldt specifically to demonstrate the integration and interdependence of the concepts of *Grundgestalt* and *developing variation* result in diverse presentations, neither of which is comprehensive nor entirely satisfactory.

In order to present an analysis that will embrace both the broader approach of Schmalfeldt's work, as well as the more specific note-to-note detail of

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<sup>37</sup> See Chapter Two, p. 46, footnote 45



Boss (whose 'categories' [p.75] subsume those given by Neff [p.67]), it is necessary to construct a set of conditions that will make possible both the identification of developments occurring to the three primary elements of a motive - rhythm, interval content, contour - and the arrangement or categorisation of motive-forms within an hierarchy of progressive transformation.

Table 3.1 (p.84) outlines the proposed set of conditions. It can be seen that there are four elements: Contour, Rhythm, Interval, and Boundary. Interval refers to the unordered and ordered pitch-interval succession. Boundary refers to the interval created by the most distant pitches within the motive, either lowest to highest (in pitch) or first to last chronologically. The table allows preservation and elimination of all four elements in all possible combinations resulting in fifteen different processes extending from repetition, where all four elements are preserved, to transformation, where the connection between the new motive-form and the *Urmotiv* can only be demonstrated in terms of intervallic relationships.

The four categories of 'Repetition', 'Fixed', 'Developed' ('Dev'd'), and 'Transformation' are delimited by the preservation of the Contour and/or Rhythmic elements. 'Fixed' categories retain both Rhythmic and Contour elements; 'Developed' categories retain either one of Rhythm or Contour. The 'Class' is denoted by the number of elements preserved: Class 1 denotes preservation of three elements; Class 2 denotes preservation of two elements of which at least one is either Rhythm or Contour; Class 3 denotes preservation of only Rhythm or Contour. Motive-forms which preserve neither Contour nor Rhythm are Transformations.

Table 3.1: Motivic Processes

Contour + Rhythm	+	Interval + Boundary	=	Repetition
C + R	+	I or B	=	Fixed Class 1
C + R	-	I + B	=	Fixed Class 2
C or R	+	I + B	=	Dev'd Class 1
C or R	+	I or B	=	Dev'd Class 2
C or R	-	I + B	=	Dev'd Class 3
		I +/- B	=	Transformation

Table 3.2 shows the fifteen permutations of the elements in hierarchical form.

Table 3.2: Elemental Permutations

Repetition	C R I B			
Fixed: Class 1	C R I			C R B
Fixed: Class 2			C R	
Developed: Class 1	C I B			R I B
Developed: Class 2	C I	C B	R I	R B
Developed: Class 3	C			R
Transformation	I B		I	B

The source for the prioritising of Contour and Rhythm over Interval and Boundary requires clarification. Initially it can be traced to Schoenberg's discussions in *Fundamentals*, which reveal his regard for the important structural role of both rhythm and contour within the motive.



Variation means change. But changing every feature produces something foreign, incoherent, illogical. It destroys the basic shape of the motive.

Accordingly variation requires changing some of the less-important features and preserving some of the more-important ones. Preservation of rhythmic features effectively produces coherence (though monotony cannot be avoided without slight changes). For the rest, determining which features are more important depends on the compositional objective. Through substantial changes, a variety of *motive-forms* [Schoenberg's italics], adapted to every formal function, can be produced.<sup>38</sup>

Schoenberg expresses the (overriding) importance of rhythmic preservation in order to effect a coherent musical discourse. Later, in Chapter Five, he discusses the construction of simple themes.

A complete musical idea or theme is customarily articulated as a period or sentence.

#### BEGINNING OF THE SENTENCE

In the opening segment a theme must clearly present its basic motive. The continuation may be either an unvaried or a transposed repetition.

#### THE COMPLEMENTARY REPETITION

In many classical examples one finds a relationship between first and second phrase similar to that of dux (tonic form) and comes (dominant form) in the fugue. This kind of repetition, through its slightly contrasting formulation, provides variety in unity.

In the repetition, the rhythm and contour of the melody are preserved.<sup>39</sup>

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<sup>38</sup> Schoenberg, op. cit., p.8.

<sup>39</sup> Ibid., p.21.

Further to these statements, Schoenberg intertwines the two elements when discussing both 'melodic considerations' and 'rhythmic considerations' in the 'period' type of phrase construction:

#### MELODIC CONSIDERATIONS: CADENCE CONTOUR

In order to exercise the function of a cadence, the melody must assume certain characteristics, producing a special cadence contour, which usually contrasts with what precedes it. The melody parallels changes in the harmony, obeying the tendency of the smallest notes, or, on the contrary, contradicting the tendency by employing longer notes.

#### RHYTHMIC CONSIDERATIONS

Since the consequent is a varied repetition of the antecedent, and since variation does not change all the features but preserves some of them, distantly related motive-forms might sound incoherent.

THE PRESERVATION OF THE RHYTHM ALLOWS EXTENSIVE CHANGES IN THE MELODIC CONTOUR.[Schoenberg's capitals]<sup>40</sup>

Whilst acknowledging the importance of these two elements, Schoenberg clearly rates rhythmic preservation above contour with regard to coherence. Several recent studies on the subject of contour raise the idea of its structural importance, particularly in twelve-tone music. Michael L. Friedmann asserts that pitch-class relations cannot perform the same role in post-tonal music as do pitch relations in tonal music: 'they cannot exert the same degree of control over the musical surface as could be attributed to pitch relations in tonal music'<sup>41</sup>. He also asserts that 'the independent associative power of each musical parameter is the major consequence of

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<sup>40</sup> Ibid., pp.29-30.

<sup>41</sup> M. Friedmann, 'A Methodology for the Discussion of Contour: its Application to Schoenberg's Music', *Journal of Music Theory*, 29 (1985), p.223



the classical twelve-tone premises of composition', hence a much-needed discussion of contour. Further to his statement on pitch class relations Friedmann comments on past views of contour.

Past views discuss contour as a general topographical feature of musical lines that does not lend itself to precise description or analysis. This sort of general treatment is well suited to music in which the difference between structural and ornamental motion is both central and obvious. In the absence of controlling tonal considerations, however, a precise descriptive apparatus for contour is required to complement the comparable theoretical structures that have been devised for pitch class.<sup>42</sup>

Friedmann's intention is to explore Schoenberg's use of contour, both as an autonomous structuring tool and in conjunction with pitch class. Due to its prime goal, his work, like the other writers mentioned in this chapter, is once again confined to a single stylistic period. The present study will show that Schoenberg considered both contour and rhythm as important motivic elements of coherence, association, and *developing variation* in the changing tonal/post-tonal contexts of his music. Where appropriate, Friedmann's terminology of Contour Adjacency Series (an ordered series of +s and -s corresponding to moves upward and downward regardless of interval) and Contour Class (the relative registral positions of pitches in a succession indicated by numbering from 0 for the lowest pitch to n-1 for the highest) will be adopted in the present study.

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<sup>42</sup> M. Friedmann, loc. cit.

## CHAPTER FOUR: ANALYSIS: MOTIVIC PROGRESSIONS

### 4.1 Introduction

The main purpose of this study is to demonstrate how the process of *developing variation*, that is, the 'working out' of the *Urmotive* of a *Grundgestalt* into a musical discourse, functions in the tonal, atonal and twelve-tone music of Arnold Schoenberg. The foregoing chapters have outlined Schoenberg's compositional tenets and discussed analytical studies pertaining to Schoenberg's ideas of *Grundgestalt* and the motive. A framework for the evaluation of motivic progressions was constructed in order to show progressions from *Urmotive* to motive-forms, and thus the relative remoteness of motive-forms to each other and to *Urmotive*. The categories of Repetition, Fixed, Developed, and Transformed were established for the identification of such progressions.

The preceding discussion of the *Grundgestalt* concerned itself with the distribution, across each of the Quartets, of thematic constructs derived therefrom. The thematic charts (see back insert) map the appearances of and inherent relationships between the constructs. The categorisation of these constructs in terms of the motivic progressions framework will enable us to ascertain a more detailed overview of the way in which Schoenberg delimits structures and creates an organic entity. These thematic motivic progressions are discussed in subsection 4.2 below. The Quartets are discussed in turn, each discussion beginning with a detailed scrutiny of the opening movement's exposition. It will be seen that the number of thematic motives that develop within each Quartet increases considerably in each successive work. As a consequence of this, discussion of the Op.7 Quartet (and, to an extent, the Op.10 Quartet) outlines in more detail the motivic procedures that are used to develop individual motives.



Commentary on Opp. 10, 30, and 37, therefore concentrates largely upon cataloguing the motivic progressions that have been employed to generate each new thematic construct.

What the categorisations are incapable of expressing, however, are the processes that take place *between* motive (or *Urmotiv*) and subsequent motive-form. The framework is only able to demonstrate the relational aspect of *developing variation* and not its continual process. In other words, only the relationship to the seed at various points of 'growth' can be observed and identified, not the process of 'growth' itself. In order to form an understanding of these progressions in both relational and continual terms, Chapter 5 examines the motivic processes which enable *Urmotive* to progress on to various subsequent motive-forms.

## 4.2 Motivic Progressions

### 4.2.1 Op.7 Quartet

The opening thirty bars of the Op.7 Quartet constitute what is essentially the Principal Exposition material. These thirty bars can be subdivided into three sections, bars 1 - 13, 14 - 24/1, and 24/2 - 29/4.

The opening section to bar 13 develops two motives, one rising, the other falling, which interact to shape the musical discourse: The first of these (Ab2) retains its rhythm whilst extending its motivic boundary interval. The second (Ab4) results from the intervallic boundary changes of the first and in rhythmic diminution (Ex. 4.2.1). The e - b $\flat$ ' boundary interval of bar 7 rising to the f' in bar 8/4 expands the Ab2 motive. The Ab4 motive sprouts repetitions as it descends from the top f'. The descent takes the melodic line to a' in bar 10/1. The phrase is repeated at the higher a'', outlining the original ascent to the note in bar 5. The thirteen bars can thus

be divided into two smaller units, bars 1 - 6 and 7 - 13: the second of these is a *developing variation* (extension) of the two motives from the first.

Ex. 4.2.1 (Op.7)

The image shows three staves of musical notation in treble clef, each with a key signature of one flat (B-flat). The notation illustrates the development of motives from different parts of a piece.

- Staff 1:** Labeled "From Bar 2" with a bracket pointing to the first measure. The notes are A-flat2, B2, C3, D3, E3, F3, G3, A-flat3. A bracket labeled "Ab2" spans the first two measures. Another bracket labeled "Ab4" spans the last two measures, which are also labeled "Ab4(1)". An "8va" marking with a dashed line indicates an octave transposition for the final notes.
- Staff 2:** Labeled "From Bar 4" with a bracket pointing to the first measure. The notes are A-flat2, B2, C3, D3, E3, F3, G3, A-flat3. A bracket labeled "Ab2 Ext." spans the first two measures. Another bracket labeled "Ab4(1)" spans the last two measures, which are also labeled "Ab4(1)". An "8va" marking with a dashed line indicates an octave transposition for the final notes.
- Staff 3:** Labeled "From Bar 7" with a bracket pointing to the first measure. The notes are A-flat2, B2, C3, D3, E3, F3, G3, A-flat3. A bracket labeled "Ab2 Ext." spans the first two measures.

The B part of the *Grundgestalt* marked in the cello part influences the development of the inner parts. The bass line develops much in the same way as the melodic voice: bars 4 - 6 are a sequential repetition of bars 1 - 3, forming an overall ascent that spans a diminished octave (inverted semitone). Bars 7 and 8 extend the descending part of the original motive, but avoid reaching the initial pitch (D<sub>1</sub>) of the motive, whilst bars 8/4 - 10/1 comprise overlapping repetitions of an extracted form of the B motive (Ex. 4.2.2).

Ex. 4.2.2 (Op.7)

The image shows two staves of musical notation in bass clef, each with a key signature of one flat (B-flat). The notation illustrates the development of the *Grundgestalt* motive.

- Staff 1:** Labeled "B" above the staff. The notes are A-flat1, B1, C2, D2, E2, F2, G2, A-flat2. A bracket labeled "From Bar 1" points to the first measure. A bracket labeled "Grundgestalt" spans the first four measures. Another bracket labeled "(Grundgestalt)" spans the last four measures.
- Staff 2:** Labeled "From Bar 8" with a bracket pointing to the first measure. The notes are A-flat1, B1, C2, D2, E2, F2, G2, A-flat2. A bracket labeled "(Grundgestalt)" spans the first four measures. Another bracket labeled "(Grundgestalt)" spans the last four measures.



The transposition of the ultimate phrase (bars 10/4 - 13) culminates in a D $\flat$ -C dyad in the upper voice supported by another semitone dyad in the cello (B $\flat$ -A). These two dyads can be associated with the semitone dyads D-C $\sharp$  and F-E that appear in the *Grundgestalt* bars 1 and 2. Repetition of the two transposed dyads gives rise to their dominance in the next section (bars 14 - 23).

The opening phrase at bar 14 comprises rhythmic elements of all three voices in the *Grundgestalt*, aligned in the same way as before. The motivic contours and pitches have been altered, however, which avoids repetition. The boundary interval of the motive in the vln 2 directly associates it with Ab2 transposed up a semitone, which implies a hypothetical E $\flat$  minor tonality. However, the persistence of the D $\flat$ -C dyad within the motivic boundary changes the internal intervallic structure and this, coupled with the A-B $\flat$  dyad in the bass motive (associating it with Aa), establishes a tonal context *different* from that in which the Ab2 motive first appears, namely B $\flat$  minor. This alteration serves both to form a continuation from the first fourteen bars and to pre-empt the re-appearance of the original Ab2 motive in bar 31 (cello), thus forming an association with both the D minor and E $\flat$  minor forms of Ab. The viola in bar 14ff., whilst retaining its rhythmic motive, imitates the original bass-line contour, and the adoption of this bass-line contour by the less significant viola part diminishes the importance of the contour. This motivic contour of B remains subordinate to the other voices, surfacing only at the final bar of the subsection, where it appears in the first violin (bar 29) outlining the dominant of the ensuing E $\flat$  minor tonality.

The entrance of the first violin in bar 18 parallels the ascent in bar 4 - 5 and extends it further. This extension evolves from repetition of the motive in bar 17, a triplet version of Ab4. The ascending motive gives

way to the descent from top  $a\flat''$ , a further fourth higher. The tritone outline of the descent in bars 21 - 23 foreshadows the same in bars 27 - 29 and mimics (a semitone lower) the descent in bars 10/4 - 12 but stops short, producing a final semitone dyad of  $e\flat''$ -  $d''$ . The bass line accompanying the descent uses the same motivic construct, in triplet form, superimposed onto the same progression as appeared before (that is, alternate fourths and thirds; Ex. 4.2.3). Its progress is also halted, and its final motive is altered to produce the semitone dyads  $G\flat$ - $F$ ,  $C$ - $D\flat$ . The material of the final part of the first subsection is again controlled by semitone dyads.

Ex. 4.2.3 (Op.7)



The opening  $D$ - $E\flat$  in the cello part doubled by the viola ( $F$ - $G\flat$ ) associates directly with the two semitone dyads in both the preceding sections. A further dyad is added in the first violin which results in a re-shaping of the motive from bar 14.

Ex. 4.2.4 (Op.7)

Example 4.2.4 charts the semitone dyads from the initial  $C\sharp$ - $D$ . The series comes full circle with the appearance of the  $D\flat$ - $D$  dyad in the cello bar 27, which, like the other groups in the example, appears in conjunction with its partnering dyad. The instance of the Neapolitan chord in bar 24 occurs by



juxtaposition of these semitone motives (example 4.2.5) of which the cadential run in the first violin (bar 29) is a neat summation.

Ex. 4.2.5 (Op.7)



Analysis of the opening thirty bars has demonstrated the *developing variation* of *Grundgestalt* motives through preservation of the prime elements of rhythm and contour. The development of each motive was shown to rely on specific pitch relationships, most notably the semitone which is a salient interval in the *Grundgestalt* itself. Throughout the rest of the work, Schoenberg relies increasingly on the preservation of the contour element of the motive-forms, which allows a greater rhythmic freedom. Each subsequent motive-form relies on contour preservation for unity with its predecessor and *Urmotiv*; certain variations of a motive occur in isolation, which reduces their significance, while recurrence of a motive-form reinforces its identity and enhances its significance. Each motive spawns new motive-forms, some being so remotely related to the original that they cease to be reliant on it and form their own motivic construct, often related to the original at a deeper level than surface features of contour and rhythm, and capable of sustaining or generating new variations. Motive-forms are therefore either closely related to the original and serve as links in a chain, or remotely related, resulting in either new motivic constructs or relatively incidental surface material. In order to show how the motives of the *Grundgestalt* proceed throughout the work, each will be taken and discussed in turn.

## Initial primary motives

The initial statement showed a profusion of two Ab motives, Ab2 and Ab4. It would be appropriate here to continue tracing the course of these two before turning to the other Primary motives (Aa, Ab1 and Ab3) and finally considering the Secondary ones (B and C).

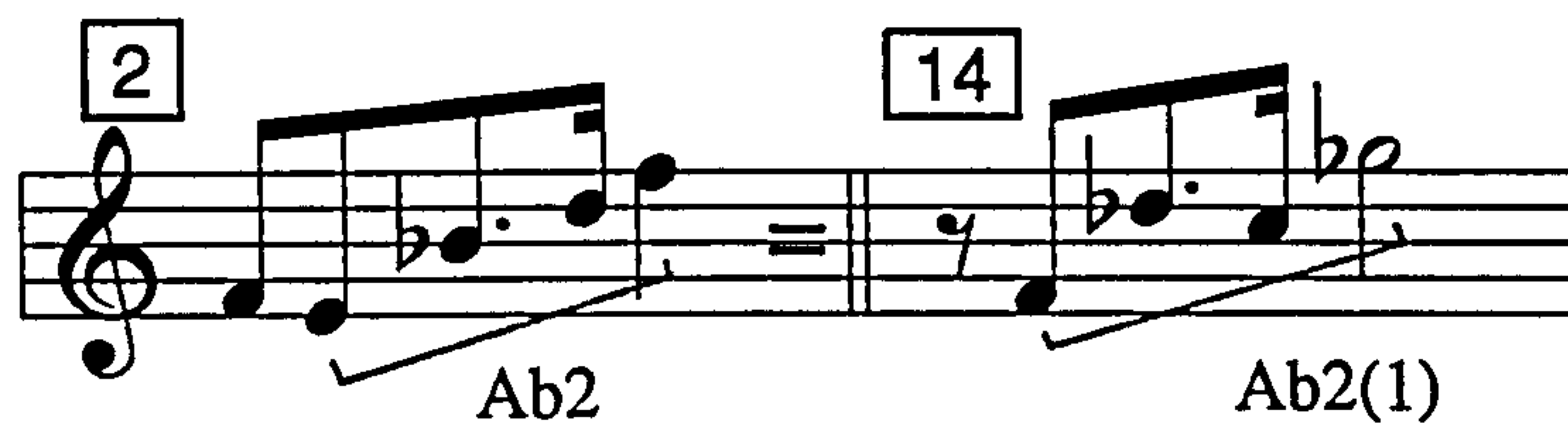
The initial variations of the Ab2 motive in bar 4/3 - 5/1 and bar 7 are what Schoenberg would have termed 'variants', since they are 'changes of subordinate meaning, which have no special consequences, and only the local effect of an embellishment.'<sup>1</sup> The first of the variants does have 'special consequences' regarding the octave transference of the highest pitch a' to a'' in bar 10/4, but this is not in the sense by which I interpret Schoenberg's rather vague phrase. Neither of the two variants re-appears in a modified form (neither immediately nor in the long term); the second is repeated (many times) in the ensuing bars of the Principal Exposition as part of a contrapuntally treated texture designed to lengthen the span of the second subsection (bars 30 - 64). In this instance, the *developing variation* is subject subsequently only to repetition. The motive-forms involved are consequently subordinated to 'variant' status. A 'variant' is, then, a motive-form which is subjected to no further variation and therefore does not form a significant part of the *developing variation* of the original motive.

The next variation of the Ab2 motive, Ab2(1) appears at bar 14 (Ex. 4.2.6) with a re-arrangement of internal intervals, reasons for which have been given above. Its subsequent re-appearance in bar 54 (viola) sparks a series of imitations by the remaining voices, which gradually widen the internal intervals (and therefore alter the boundary interval), a process of liquidation which erodes the intervallic identity of the motive-form.

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<sup>1</sup> Schoenberg, *Fundamentals*, p.8.

Ex.4.2.6 (Op.7)

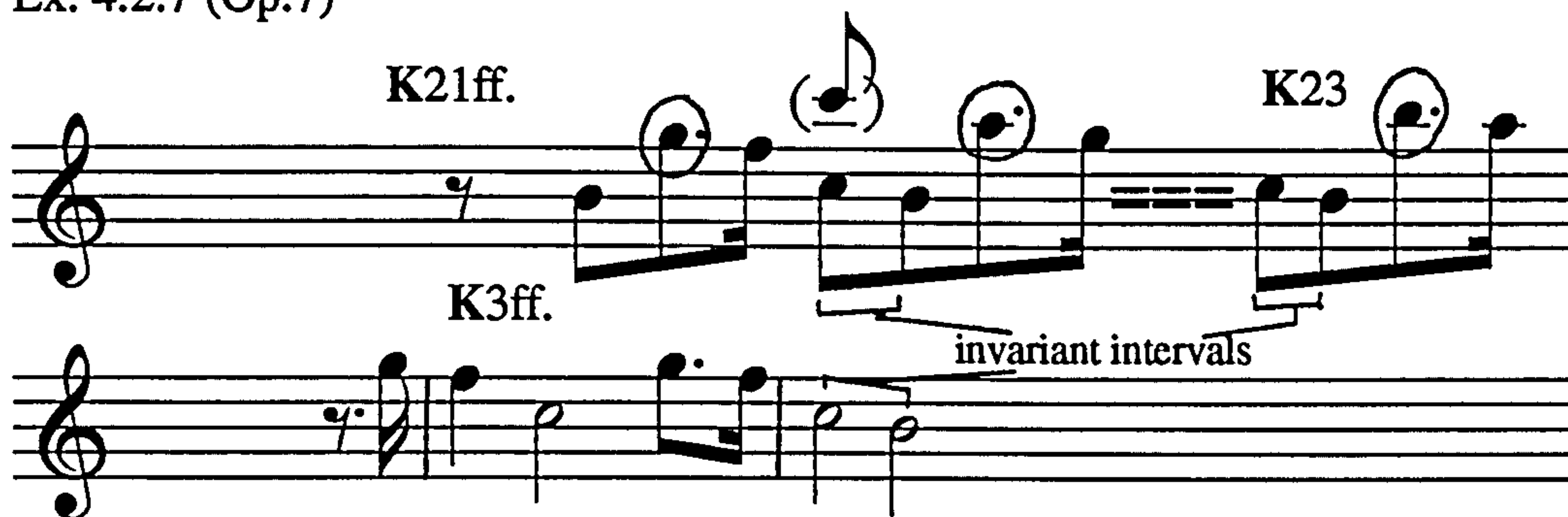


Motive-form  $Ab2(1)$  re-appears at **D15** with its original intervals restored. Here, and at bar **I56**, are the only two recurrences of this prime form of motive  $Ab2(1)$  in the entire Quartet. The appearance of the motive-forms at **I56** is part of the Recapitulation of material from the Principal Exposition, which occurs at the original pitch (octaves aside); the appearance at **D15** occurs simultaneously with the second variation of motive  $Ab4$  (from bar 24), both of which are stated here in D minor rather than their original  $B\flat$  minor ( $Ab2(1)$  at bar 14) and  $E\flat$  minor ( $Ab4(2)$  at bar 24). The resultant association of these D minor statements with the opening of the Quartet creates a formal boundary, marking the end of the Exposition of Principal material.

Two further variations which retain the original  $Ab2$  rhythm but continue to follow the  $Ab2(1)$  contour occur at **F84** (vln 1) and **K21 - 23** (vln 2). The rhythmic cells of these subsequent appearances gradually get closer together, until the four note pattern repeats itself immediately (in **K21 - 23**). The octave displacement downwards of the **C** in the motive-form at **K22** has a dual purpose. It creates a new contour for the motive-form, thus providing development, which in turn forms a semitone with the initial note of its repetition, and associates it with the end of the Slow movement theme at bar **K3/4 - 4** (example 4.2.7).

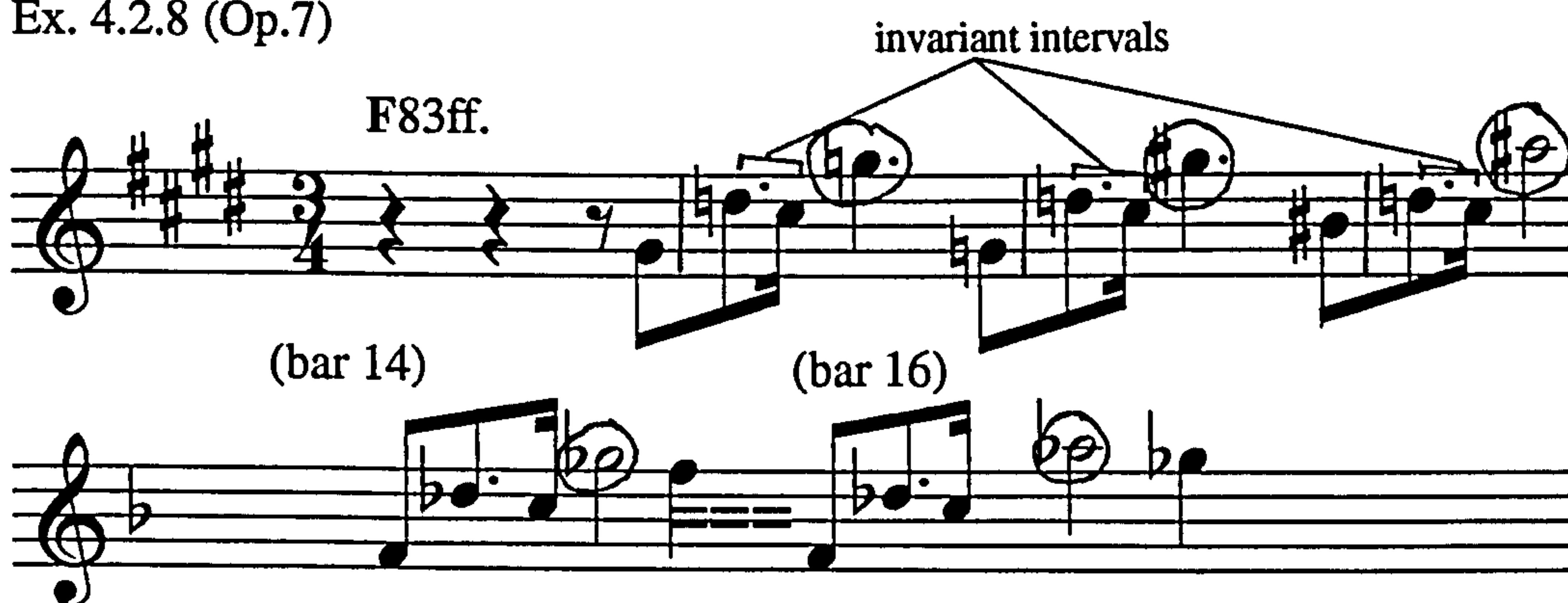


Ex. 4.2.7 (Op.7)



The local *developing variation* of the two motive-forms show a change in invariant intervals: the first at F84 retains the fixed semitone in the centre of the motive, with a step-wise rising pitch at the end, augmenting the boundary interval in a similar way to the original motive-form at bar 14 (Ex. 4.2.8); the second reverses these procedures by fixing the position of the final note and successively raising the middle dyad by a tone (also Ex. 4.2.7). The fixed position semitone occurs in all three places (at bar 14, bar F84, and bar K22) as the mediant and supertonic of the key.

Ex. 4.2.8 (Op.7)



The next occurrence of the Ab2(1) motive-form is as part of a false recapitulation of the Principal material from bar L38 - 51. The cello announces an inverted restatement of the work's opening theme followed immediately by a variation of the original. The alteration of the Ab2(1) motive-form (bar L40/3 - 41/2) widens its motivic interval. The e $\flat$ -d semitone (bar L41/4) marks the first octave transference of the initial semitone of bar L40 ( E $\flat_1$  - D $_1$  ; cello) which culminates at the climactic e $\flat'$

d' in bar L44/4 - 45/1 (cello) (Ex. 4.2.9).

Ex. 4.2.9 (Op.7)

The Ab2(1) motive-form appears finally in the coda at O22 in the vln 2 and viola parts in inversion, which transfers the sustained (and prominent harmony) notes down the octave as well as providing rhythmic complementarity to that bar, their shape being dictated by the chord formed from the three sustained notes C, E, and G, above a pedal of D and A in the cello.

The prominent interval of the perfect fourth stems from the Coda version of the Ab motive in bar O6 (f#-b, vln 1) where it replaces the tritone which has played an important motivic-structural role in the work. The perfect fourth interval also has important structural pitch implications: the g' reached by the viola in bar O4 associates with the vln 1 g' in bar O9, an alteration of that note's original pitch (see bar 5, vln 1). The g' is transferred through a sequential passage to g'' in bar O12. It is prominent at bar O20 (viola), where it contributes to the sustained chord, and again at O42 ('cello). In all these places the G resolves to an F# (the g' at O9 has its resolution delayed until after its octave transference), though its harmonic resolution is not as important a motivic factor (if it is one at all) as the interval formed between the D and the G. Throughout the work the Ab2 motive maintains its identity by the retention of its rhythmic element. Its original contour appears only with recapitulations of the entire *Grundgestalt*; it is replaced by the altered contour which first appears in

bar 14, resulting from the dominance of the  $d\flat' - c'$  dyad in the preceding bars. This contour seems to be the preferred statement for the motive when it appears without the complementary *Grundgestalt* motives, particularly the preceding motive Aa. This 'fixed' motive-form is so called because the two main elements of rhythm and contour remain invariant. The third element, interval, divides into two categories: boundary and internal. In the majority of the motive-forms developing from Ab2 the central internal interval remains invariant, a descending semitone, which both reinforces the importance of the semitone dyad and further categorises the motive's development process as 'Fixed: Class 1'.

Transformation of the Ab2 motive (that is, disposal of rhythmic and shape attributes) occurs at letter K. This serves to generate new material, related to the *Grundgestalt* motive by interval alone. Verticalisation of the opening four notes of the Slow movement produces a version of the Ab2 notes, transposed down by a semitone. The internal intervals are not entirely identical, due to the minor tonality being centred around  $a'$ . The original intervals are eventually restored by the progression to a 'Developed: Class 2' motive-form, whereby either the contour or the rhythm is retained, together with the boundary interval (but not the internal intervals). In this particular case, which occurs at letter M, the contour is retained and the rhythm altered (Ex. 4.2.10).

Ex.4.2.10 (Op.7)



The other main motivic cell developed through the first 30 bars proves to be Ab4. This motive essentially subsumes Ab1 and Ab3 (the remainder of the Ab motives); differentiation is made between Ab1 and Ab4 due to their



respective contours. Ab3 and Ab4 are identical save for the extra note that Ab4 possesses, which alters the paths along which they develop. The majority of motive-forms extending from Ab4 do so by preservation of the contour element of the motive and development of rhythmic and intervallic features. Rhythmic development occurs in three different ways: the first shortens the length of the second, third and fourth notes to equal time values (e.g. bar 8/4 - 9/1, vln 1); the second shifts the fourth note onto the next strong beat (e.g. bar 19, vln 1); the third, like the second, has equal note values, though it omits the fourth note; more importantly, it removes the tie on the first note (which the former two rhythmic developments retain) which promotes the relative rhythmic weakness of the remaining notes (e.g., F16 - 17, vlins 1 and 2) (Ex. 4.2.11).

Ex. 4.2.11 (Op.7)

Ab4

Ab4(1)

First Group  
Dev:2  
bar 8/4 - 9/1

Second Group  
Dev:3  
bar 19

Third Group  
Dev:3  
bars F16 - 17

The intervallic relationships set up by the motive-form appearing in bars 8/4 - 9/1 (the first of the rhythmic developments) are retained on its subsequent appearances. The initial interval is the only original, the rest having been altered by the lowering of the third note to form a boundary interval (here, the interval between the highest and lowest notes of the motive-form) of a major 7th. The intervallic relationships in the second group (the triplet formation) do not remain constant but are affected both by tonal constraints and other motivic constructs (the initial interval never exceeds a tone, however). The third group comprises three motive-forms: the first relates intervallically to the first group (cf. bars F16 - 17 and bars 8/4 - 9/1); the second relates to the second (cf. K2/4 - 3/3 and bar 19); the

third motive-form stems from the second also, but re-establishes the fourth note of the motive (bar N1, vln 1) (Ex. 4.2.12). Both the second and third motive-forms in this group share the boundary interval of the original Ab4 *Urmotiv*. The above motive-forms fall into the process category 'Developed'. The first and second groups of motive-forms can be categorised as Developed: Class 3. The third group motive-forms are divided into Developed: Class 2 progressions of the Ab4 *Urmotiv* itself and Developed: Class 2 progressions of the Ab4(1) motive-form.

Ex. 4.2.12 (Op.7)	First Group Dev:2 bar 8/4 - 9/1 Ab4(1)	Second Group Dev:3 bar 19	Third Group Dev:3 bars F16 - 17 (Dev:2 of Ab4(1))
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The musical notation consists of three staves. The first staff shows the original Ab4 motive-form (bars 8/4-9/1) and its development (bar 19). The second staff shows the development of the Ab4(1) motive-form (bars F16-17). The third staff shows the development of the Ab4(1) motive-form (bars K2-3). The notation includes interval labels such as ic1, (ic5), ic2, and 8va, and bar numbers.

Other motive-forms of Ab4 are fixed, since their motivic progression retains both contour and rhythm. This associates them more closely to the original motive as changes occur purely to interval relationships. The majority of these fixed motives appear within restatements of the *Grundgestalt* (e.g. bars 60 - 61, L45, O7).

The two motives Ab2 and Ab4 have been shown to provide much of the

musical material for the opening of the Quartet, as well as the thematic text of the second main part. The remaining motives of the *Grundgestalt*, as one might expect, are responsible for the development of musical material of the first main part of the Quartet. The motives in question are Ab1, B and C.

As was previously stated, the B motive is the opening bass-line, the next most important voice after the vln 1 melody. Its subordination in this capacity results in less development of its substance and less thematic transformation at structural points. Little, if any, long-term development of the third voice (viola) can be seen, although some analysts have sought meaning in its motivic construction.<sup>2</sup>

### Remaining Primary Motives

The potential in the first part of the Ab motive (Ab1) is unfolded in the course of the first half of the Quartet. It is largely disregarded at the opening in favour of the rising and falling motives Ab2 and Ab4 (see above) re-appearing in bar A1 in two transformed states. (It must be stressed again, here, that the motivic divisions of the Ab part of A into numbers 1 - 4 result from their physical shape: Ab1 is directly related to Ab3 - and consequently Ab4 - in all ways other than contour disposition of pitches). Example 4.2.13 (p.102) shows how Ab1, reduced to its motivic and internal intervals, is then employed to form two new motivic constructs named A1 and A2. It is quite clear from the example that A1 retains more features of the original motive than does A2: not only are the intervallic properties retained, but the contour is preserved (albeit reversed). This reduces the motivic level of the A1 motive-form from 'Transformation' to that of 'Developed: Class 1', whilst A2 remains a

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<sup>2</sup> See Neff, *Aspects of Grundgestalt*, p.16ff.



transformation, having no shape or rhythm related to the original. This important distinction between the two has both structural and developmental ramifications.

Ex. 4.2.13 (Op.7)

The musical score for Ex. 4.2.13 (Op.7) consists of two staves. The top staff begins with a treble clef and a key signature of one flat (B-flat). It contains several measures of music, with labels 'Ab1' appearing above and below the staff. A box labeled 'A' is placed above the staff in the third measure. Further right, there are labels 'Ab1' above the staff and 'Ab1' below the staff, with a bracketed group of notes labeled '3'. The bottom staff also begins with a treble clef and a key signature of one flat. It contains measures of music with labels 'Ab1' below the staff and '= RI' below the staff. A bracketed group of notes at the end of the bottom staff is labeled 'Ab1' below it.

### The two 'Transition' motive-forms<sup>3</sup>

The A1 motive-form is constructed from a sequence of repetitions of the Ab1 motive based around an augmented triad (which allows only two repetitions at different pitches), the last of which is decorated with an upper neighbour note and ancillary notes within the tritone interval (Ex. 4.2.13). The A2 motive-form is also created out of repetition of the Ab1 motive, but an altogether different motive-form is produced due to changes in contour. Throughout the Structural units from bars A1 - D33, the A2 motive-form remains stable, having only rhythmic alterations, which prepare it for its main development at E1. The A1 motive-form is almost entirely discarded after the 'Transition', being split up into three further motive-forms, two of which are developed and one which remains fixed. Schoenberg uses A1 and A2 in these ways in order to provide a coherent discourse of developing variation with A1, whilst preserving A2 for

<sup>3</sup> Walter Frisch discusses the sketch material of the transitional motives and the Scherzo theme, presenting a complementary account of this part of the quartet. See Chapter 1, p.18 and its footnote (28) in this study.

further 'development' at bar E1ff. . Schoenberg establishes A2 as an important motive-form by using it in a contrapuntal way against A1 in the 'Transition' Structural unit. The constant repetition of both motive-forms creates a stretch of music which seeks to establish their identity in place of those in the preceding sections. Having created two motive-forms simultaneously Schoenberg then sets about developing them consecutively, A1 at bar A57, and A2 at E1.

Ex. 4.2.14 (Op.7)

The musical score for Example 4.2.14 (Op.7) consists of two staves. The top staff features a melodic line with various intervals and a triplet. The bottom staff features a bass line with a triplet. Labels 'a', 'b', and 'c' are placed above the top staff to indicate different motive-form groups. 'Ab1' is labeled above the top staff and below the bottom staff. 'A63', 'A58', and 'A57' are labeled below the bottom staff. A bracket labeled '3' is placed above the bottom staff.

Example 4.2.14 shows how the repetitions of Ab1 within the A1 motive-form are distributed across three subsequent motive-form groups a, b, and c. Group b motive-forms rarely occur without being preceded (not followed) by group c ones. This links their development together and separates them from group a. Contour preservation is paramount in all these motive-form sub-groups. Motivic interval preservation is also strictly adhered to in group b except for the cadential 'variant' in the Slow movement (bar K17, vln 1), which is immediately followed by a strict version of the motive-form. Internal intervallic relationships in group b are altered by chromatic movement of single notes. The rhythmic element of group b falls into two types; in the first, the three notes after the initial dotted one are proportioned 1:2:2:, in the second, they are equal. The rhythmic aspect of group b changes insignificantly, indicating a classification for the group of 'Fixed: Class 1'. Group c only has one

interval, namely, the semitone, which is maintained in all places except its first appearance at bar A57 (again a 'variant' rather than the important motive-form itself), which classifies it as 'Developed: Class 1'. Effectively, groups b and c remain unvaried save for the internal intervallic properties of b and the rhythmic features of c, whose subtle changes occur within context of the surrounding musical material. In group a, the rhythmic changes are greater, coherence being maintained by preservation of the intervallic properties, which classify group a as 'Developed: Class 1'.

### Thematic 'development': Scherzo theme

The development proper of the A2 motive-form, it has been noted, does not begin until rehearsal letter E. The first of the two rhythmic changes mentioned above, that occur before this point, presages the rhythm used for the motive-form at E1. The second is more similar to the original, being cast in quadruple time rather than triple. Both these rhythmic changes are governed by the surrounding metric changes, themselves brought about by developments of other motive-forms (e.g., bars A71, B1, and D24) and re-iterations (e.g., C1).

Three aspects of the motive-form are changed at E1: rhythm, which has already been developed; internal intervals, where only the rising fourth and falling fifth are retained; the motivic interval of the tritone which has widened to a fifth. This development (Class 3) is very close to transformation but, due to the persistence of the contour, rather than a purely intervallic relationship being retained, the motive-form cannot be so categorised. The motive-form at E1 becomes the main characteristic form throughout the rest of the work, developing only at Class 1 level with rhythmic changes, or remaining fixed.

The hemiola figure which characterises the Scherzo theme continues into



the transition section, bars F1 - 43, preceding the Trio. This rhythmic figure has a durable life which affects two other motive-forms at F11 and F29 (vln 1) both of which stem from versions of Ab4 (see above). The Trio theme begins at bar F44. Like the preceding motive-forms in the transition section, the Trio shares the rhythmic hemiola. Its intervallic content can be seen to parallel that of the Scherzo theme 'out of phase', so to speak. Retention of these features renders the motive-form little more developed than its predecessor - the Scherzo theme - showing itself to be a Class 1 Development thereof (contour or rhythmic variation only). The remaining motive-forms used in the ensuing bars are those which had re-appeared in the transition to the Trio. Further to these, at F83, the Ab2(1) 'mature' (see below) motive-form is added. The Trio represents a development at the lowest level (Class 1) and as such cannot be regarded as a theme in its own right.

### Secondary motive

The B motive of the *Grundgestalt*, occurring initially in the 'cello line, develops along three pathways: the first is the 'Fixed' category, in which, by and large the motive is repeated wholesale, always occurring as either a countermelody or an accompanimental figure (see bars 14 (viola), 30 (vlns 1 & 2), 44 (vln 2), B35 (viola), E26 (viola & cello), F22 (viola) ). The second is the 'Developed' category, which stems from a 'maturing' (see below) of the motive in bar 8/4 and 10/1. In this category comes the thematic development of the Secondary Exposition theme, which retains contour and motivic intervals, but alters the rhythm and internal intervals by adding notes (Ex. 4.2.15, p.106). The third category is the transformation of the motive at the appearance of the slow movement secondary theme (bar K52, viola).

Ex. 4.2.15 (Op.7)



## Development

The *Grundgestalt* motives (or *Urmotive*) have been shown to develop in different ways, with changes occurring to all elements of the constructs. A pattern can be traced, however, that links the processes affecting them: none of the *Grundgestalt* motives is developed without first being 'matured'. The distinction between the *Urmotiv* and its first development (or 'maturing') is often far greater than that which exists between the mature form and the subsequent motive-forms. So the process of motivic development occurs in two stages: from *Urmotiv* to mature motive-form and then to subsequent motive-forms.

The first stage is nearly always a 'Developed' one (as opposed to 'Fixed'), whereby only one of the two main elements of contour and rhythm is retained. The second stage includes the 'Fixed' category as well as the 'Developed' one. The 'mature' motive-forms which subdivide into groups further employ a mixture of 'Developed' and 'Fixed' processes, whereas those that do not subdivide remain essentially 'Fixed'. Example 4.2.16 compares the journey of Ab1 with that of Ab2.

Ex. 4.2.16 (Op.7)

Musical score for Ex. 4.2.16 (Op.7). The score is written for a single melodic line on a grand staff (treble and bass clefs). It consists of 10 staves of music. The notation includes various musical symbols such as notes, rests, accidentals, and dynamic markings. Above the first staff, the letter 'A' is written, followed by 'b1', 'a', 'b', and 'c'. Above the second staff, the letter 'A' is written, followed by '63', '58', and '57'. Above the third staff, the letter 'D' is written, followed by '1', '83', and '1'. Above the fourth staff, the letter 'F' is written, followed by '29', '16', and '50'. Above the fifth staff, the letter 'F' is written, followed by '80', '35', and '15'. Above the sixth staff, the letter 'F' is written, followed by '115', '10', and '19'. Above the seventh staff, the letter 'H' is written, followed by '19', '4', and '37'. Above the eighth staff, the letter 'M' is written, followed by '37'. Above the ninth staff, the letter 'M' is written, followed by '37'. Above the tenth staff, the letter 'M' is written, followed by '37'. The score is divided into two systems of five staves each.

Ex. 4.2.16 (cont.) (Op.7)

Continuation of the musical score for Ex. 4.2.16 (Op.7). It consists of 7 staves of music. The notation includes various musical symbols such as notes, rests, accidentals, and dynamic markings. Above the first staff, the letter 'A' is written, followed by 'b2'. Above the second staff, the letter 'A' is written, followed by '14'. Above the third staff, the letter 'A' is written, followed by '59'. Above the fourth staff, the letter 'D' is written, followed by '15'. Above the fifth staff, the letter 'F' is written, followed by '84'. Above the sixth staff, the letter 'K' is written, followed by '21'. Above the seventh staff, the letter 'O' is written, followed by '22'. The score is divided into two systems of four staves each, with the final staff on the second system.

Transformation

Motivic 'Transformation', based on the Motivic Progression criteria, rarely occurs in the work. The three points at which it does occur ought, one might think, to have a special significance. The first is the beginning of the Transition (bar A1ff.), which marks the first departure from the opening material; the second is the Slow movement theme (K), whose importance is reinforced by its circumstances. The structural and motivic implications of these two events are self-evident. The third at K52 (the



Slow movement's second theme) is perhaps a little surprising considering its comparatively minor structural and motivic significance. However, if the view is taken that the Slow movement theme represents a reconstruction of the constituent parts of a transformed *Grundgestalt*, then its secondary theme complements the Ab2/Ab3/Ab4 motivic transformation with a transformation of the B motive, which has hitherto remained a secondary consideration.

The above analysis has provided evidence of motivic construction and process at work in the Op.7 quartet. It has been shown that within the *Grundgestalt* lie - in an embryonic state - the motive-forms for the entire work, but these must be realised (matured) initially before any further motivic processes can take place. The main theme is not itself embryonic yet, as *Grundgestalt*, its constituent elements provide the source of all future developments. The maturing process allows Schoenberg to create and control a work on such a large scale without exhausting the *Grundgestalt*, but still maintaining coherence and continuity of thought. This confirms Schoenberg's statement that

Intelligibility in music seems impossible without repetition. While repetition without variation can easily produce monotony, juxtaposition of distantly related elements can easily degenerate into nonsense, especially if unifying elements are omitted. Only so much variation as character, length and tempo required should be admitted: the coherence of motive-forms should be emphasised.<sup>4</sup>

It was shown in the above analysis that motives undergo various graduated processes from Repetition through 'Fixed' adaptations and 'Development'

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<sup>4</sup> Schoenberg, *Fundamentals*, p.20.

to Transformation. Transformation<sup>5</sup>, is a comparative rarity since it forms the most remote associations with the *Grundgestalt*. Other motive-forms are artificially fixed or developed to create an 'organic' entity of interwoven static and dynamic motives.

The four categories of Repetition, Fixed, Developed and Transformation are the means by which both the musical discourse is generated and integrated and the structure (globally and locally) is articulated. That the subsequent motive-forms of the entire work stem from the opening statement or *Grundgestalt* there can be little doubt. This inevitably procures the required 'coherence' of musical thought and it is hoped that the above analysis provides sufficient evidence to this effect. How these motive-forms are integrated into a coherent structural entity will be explained below.

## Integration

It has already been stated that the work is divided into two 'halves' each comprising two 'movements', the main division occurring at rehearsal letter K, the statement of the slow movement theme. The four primary thematic statements are those which articulate the main 'classical' forms - Sonata-allegro, Scherzo, Slow and Rondo finale - that Schoenberg integrates into one complete span. The mid-point also marks the only direct Transformation of a *Grundgestalt* motive into a primary thematic statement. The other three primary statements are the *Grundgestalt* itself, and two 'Developed' motive-forms of initial Transformations. These two 'Developed' forms evolve in much the same way from their ancestors: the Scherzo motive-form develops from a transformation of the *Grundgestalt*

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<sup>5</sup> **Transformation**, under the criteria stated on p.84, is the process undergone by a motive-form that renders its relationship to its source - or *Urmotiv* - such, that the motivic elements connecting the two are purely intervallic.

motive labelled Ab1 (Ex. 4.2.17). The first two notes of the *Urmotiv* are interverted thereby altering the initial consecutive intervals of semitone+tritone to semitone+perfect fourth, but maintaining the boundary interval (tritone). A retrograde inversion of this forms the transformed motive-form, one of the two 'Transition' statements.

Ex. 4.2.17 (Op.7)

The image shows a musical score for two violin parts. The top staff, labeled 'A1 (vln 2)', contains a sequence of notes: G4, A4, Bb4, C5, D5, E5, F5, G5. A bracket under the first two notes (G4 and A4) is labeled 'Ab1'. An arrow labeled '=RI' points from this bracket to a retrograde inversion of the first two notes (A4 and G4). The bottom staff, labeled 'E1 (vln 1)', contains a sequence of notes: G4, A4, Bb4, C5, D5, E5, F5, G5. The key signature for both staves is one flat (F major or D minor).

Three of the four constituent elements of the mature form of the Ab1 *Urmotiv* are altered to provide the Scherzo theme: further alteration of the intervals is required by the tonal context (i.e., the G flat Major key); the semitone becomes a tone which stretches the boundary interval to a perfect fifth. The rhythmic proportions are altered from 1:4:6:2:2:2, to 1:2:2:1:1:(4), within different tempi and metres, though the relative proportions are similar. Whilst this constitutes a Developed: Class 3 process, the alterations are all slight enough to allow the Scherzo theme an audible retrospective association with its transitional predecessor.

The Rondo theme (motive-form) stems from the Slow movement theme and is, in effect, a 'majorisation' with a few rhythmic alterations. The transformation of the Ab2 *Urmotiv* into the Slow theme involves interversion of the two middle notes of the motive and a retrograde as well as re-distribution of the internal intervals by (a chromatic) alteration of the third note (that is of the *Urmotiv*); once again, the boundary interval is retained. As with the Scherzo motive-form the development of the Rondo



theme is affected by tonal and metric/rhythmic contexts: the tonality switches from A minor to A major, the overall tempo is quicker (in the majority of performances approximately twice as fast) and the rhythmic proportions become equal (rhythmic change moves from 1:4:8, to 1:1:1); the rhythmic stresses remain on the middle note in both cases. The change of tonality effects a return of the original *Urmotiv* intervals but the interversion continues to link the contour with the Slow movement theme rather than the *Urmotiv*. The alterations are again slight, but sufficient to subject the transformed *Urmotiv* to a Developed: Class 2 process (contour and boundary interval retained). Clear structural divisions are created here, then, by the transformation and developmental processes of the *Urmotive* of the *Grundgestalt*. No other *Urmotive* are subject to transformation (except the opening 'cello line, *Urmotiv* B; see below) nor are any subsequent motive-forms derived thereby. This process, which results in the formation of the most remote motivic connections, is preserved for the global association of large-scale units.

As was previously stated, each of the *Urmotive* is first 'Developed' before any further process is employed. The process of developing away from the initial thematic statement is an important one which requires further clarification.

The 'maturing' of *Urmotive* occurs at different points in the work, each one giving the discourse a forward propulsion of 'new' life, the *developing variation*. Taken chronologically, of the four *Urmotive* that mature, three do so in the first 14 bars, Ab4, B (both at bar 8/4ff.) and Ab2 (at bar 14). This gives the aural effect of immediate growth at two important local structural points, that is, the continuation that closes the first section and that which opens the second. With enough developed material, Schoenberg then allows two repeats of the first thirty bars, using the developed motive-

forms as well as elaborating original motivic units. This establishes the newly-formed mature motives as part of the musical fabric by constant repetition and interaction of the various constructs. There is no development in the Schoenbergian sense here. His likely term for the repetitious sections might well be *Durchführung*<sup>6</sup> since the motives themselves are repeatedly used to saturation point, which inevitably results in the liquidation of all that has gone before. It is at this point (letter A), 97 bars into the work, that Schoenberg 'matures' the fourth *Urmotiv*. This fourth maturing occurs simultaneously with the first transformation, both motive-forms deriving from the same source, and the interaction of transformation and development here creates a structural divide by provision of entirely 'new' material. Schoenberg links, in an embryonic way, these two motive-forms with the previous section by introducing the tritone fall of A1 in bars 85-6 (viola), and by reducing the rising alternate fourths and thirds to an interval common to both A1 and A2 (the transformation), namely, the fourth. The functions of these two subsequent motive-forms have been discussed above. Having established the identity of these two new motive-forms by a sequence of imitative entries, formal constraints (and logic, one might add) dictate the arrival of a different construct. Development again becomes necessary and three groups of motive-forms are derived from A1 to perform the dual function of a short coda and new discourse. The transitional passage (bars A57 - 70) to the next Developed: Class 2 motive-form (i.e., the secondary theme in bar A71) is less subtle a link than that occurring between bars 85 - A1. The triplet minims (bars A61 and 62) appear as an outburst in the serene context, dovetailing the motive-forms of the Transition with the new theme at A71. It is from bar A82 onwards that development of these motive-

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<sup>6</sup> *Durchführung*, in Schoenberg's terms, means 'themes which have not modulated in the first division are now geführt durch, (led through) contrasting regions in a modulatory procedure (see Schoenberg, *Structural Functions of Harmony*, ed. L Stein, London 1969, p.145).

forms occurs, as the three phrases of bars A57 - 70 and the secondary theme bar A71ff. are intertwined. The developments that take place are largely due to changes of metre, which only affect the rhythm, and class the development here as 1. Two previous motive-forms are re-introduced, almost simultaneously, at bars B35-36 (viola and 'cello). These two form long-term associations with motive-forms in the following Scherzo movement. So Schoenberg is again presaging what is to come, this time at a greater chronological distance. The section from B14 - C1 therefore involves elaborative interaction of developed motive-forms.

What happens between C1 and E1 has been interpreted formally in different ways by other commentators: Philip Friedheim simply calls it 'Development' meaning the second section of a sonata-allegro form;<sup>7</sup> Severine Neff and Walter Frisch both regard it as a recapitulation of the music from the opening to letter B (Frisch qualifies this by referring to it as a 'varied recapitulation').<sup>8</sup> I am more in agreement with the latter interpretation, but prefer to use the term 'parallel' *developing variation*.<sup>9</sup> A genuine recapitulation at this point would create the impression of a closed form. The use of a different key for the main theme, together with extensive development of the previously heard motives prevents any such closure. This 'structured' developmental process allows Schoenberg to re-present the entire motivic material of the Exposition - both Principal and Secondary - creating a larger structure which defies the traditional sonata-allegro mould in that the re-presented material is both recapitulation *and* development. It must not be overlooked, however, that Schoenberg does in

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<sup>7</sup> P. Friedheim, *Tonality and Structure in the Early Works of Schoenberg*, (Ph.D. dissertation, New York University, 1963).

<sup>8</sup> See Neff, 'Aspects of Grundgestalt', p.33 and her footnote 38; also Frisch, *The Early Works of Arnold Schoenberg*, p.188 - 189.

<sup>9</sup> My use of the word 'parallel' in this context is intended to reflect the idea that the thematic statements are presented and developed wholesale for a second time in their original order. Schoenberg employs this technique in the other three quartets (q.v.).

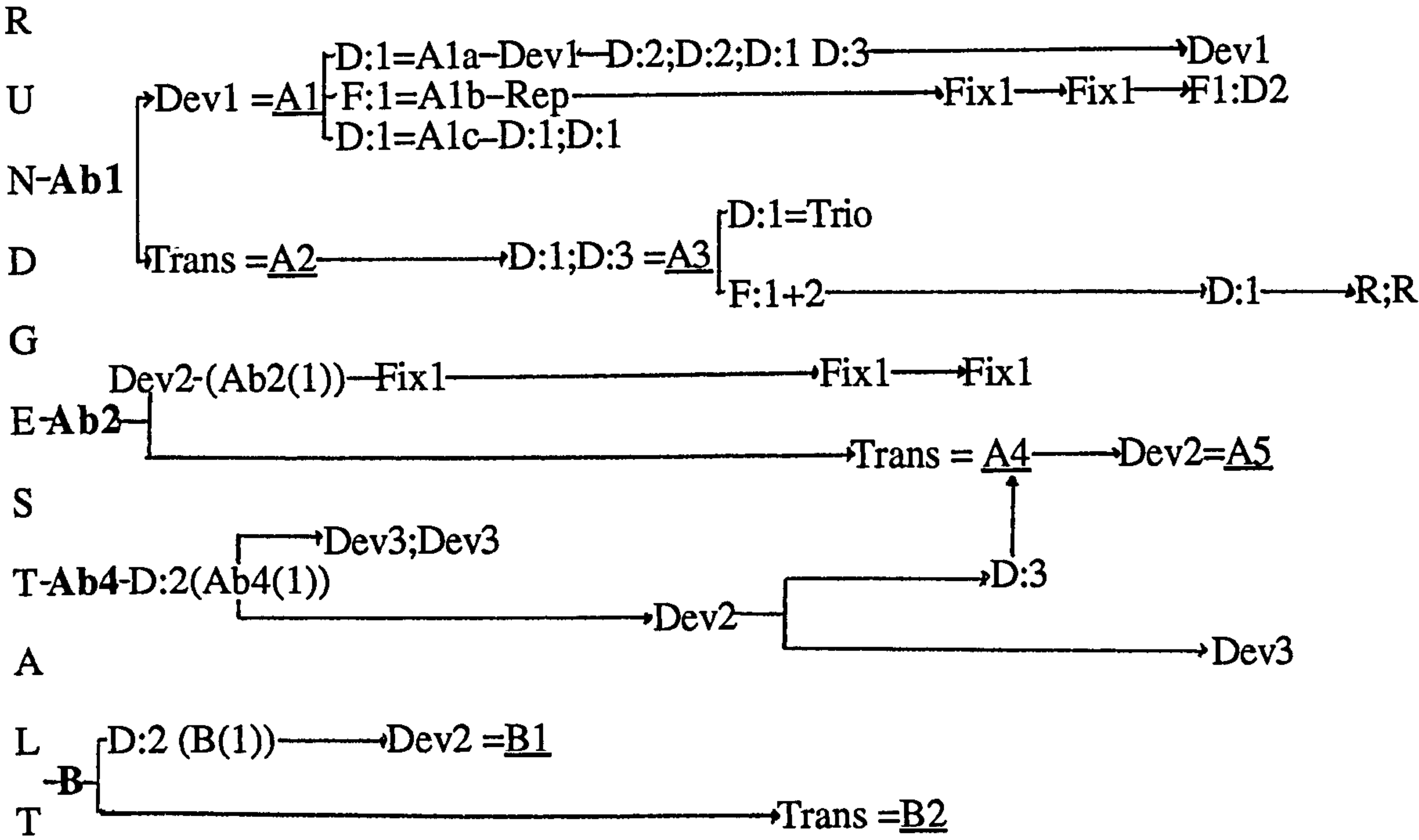


fact recapitulate the opening thematic statements of bars 1 - 18 at I38(ff.) in the tonic key (D minor). The significance lies in what is *not* recapitulated here, namely, the third thematic construct of the Principal group (bars 24 - 30). The recapitulation of this music occurs much earlier at bar D14, the end of the 'parallel' *developing variation* section. Its function here *is* one of closure, in that its return in the tonic key area (albeit briefly) both recapitulates the material and frames the entire sequence of events with respect to the D minor tonality.

Thus far, the two concepts of development and elaboration (*Durchführung*) have been shown to have different functions in relation to the motivic processes that interact to construct the musical fabric. Development is the periodic process whereby motive-form begets motive-form. This process requires very little musical chronological space: it denotes associative connections between motive-forms rather than contiguous relationships. The term *Durchführung* is regarded here as being the local interaction of motive-forms, generally by repetition and Fixed motivic processes. Development occurs to advance motivic succession, *Durchführung* to establish the successive motive-forms and weave them into a musical discourse. A brief summary of the motivic progressions is given overleaf.

Motivic Progressions Op.7

G      1st Exp. Transition      2ndExp    Sch'zo    1stRec    Slow    2ndRec    Rondo    Coda



## 4.2.2 Op.10 Quartet

### 4.2.2.1 Op.10/1

Earlier discussion of the Op.10 Quartet in Chapter 2 outlined a four-bar *Grundgestalt*, which was seen as a development of rhythmic repetitions as well as an unfolding of intervallic associations. The rhythmic expansion of the *Urmotiv* (that is the entire first bar) creates an overlapping from bar 3 to bar 4 and also - due to its repetition - from bar 4 to bar 5. This results in an asymmetric phrase structure which initially comes to rest at the beginning of the fifth bar (Chapter 2, Ex. 2.5b). However, overlapping repetitions of the 'y' interval in the lower voices (at the new transposition culminating on unison c) extend the phrase a further two bars to seven. Augmentation of the *Urmotiv* in the cello (bar 7) serves both to anticipate the transposition of the theme in bar 8 and to link the two phrases by its overlapping.

The second phrase, beginning at bar 8, generates further repetitions of the Aa2 *Urmotiv* initiated in bar 2. The third statement of the motive-form in bar 10 is both rhythmically and intervallically augmented as shown by the 'paradigmatic' example 4.2.18. The example shows also how the ultimate interval in bar 2 is altered from a tone to a semitone in bar 9 and this is retained in bar 12. This alteration of Aa2 heralds the first important maturing of an *Urmotiv*, and it is this 'mature' motive-form that is used throughout the movement. The main theme itself is never repeated in its entirety (even at recapitulation), nor indeed is the Aa2 *Urmotiv* ever restated in this movement in its original form (i.e., as in bar 2 vln 1).



# Ex. 4.2.18 (Op.10/1)

Bar nos.

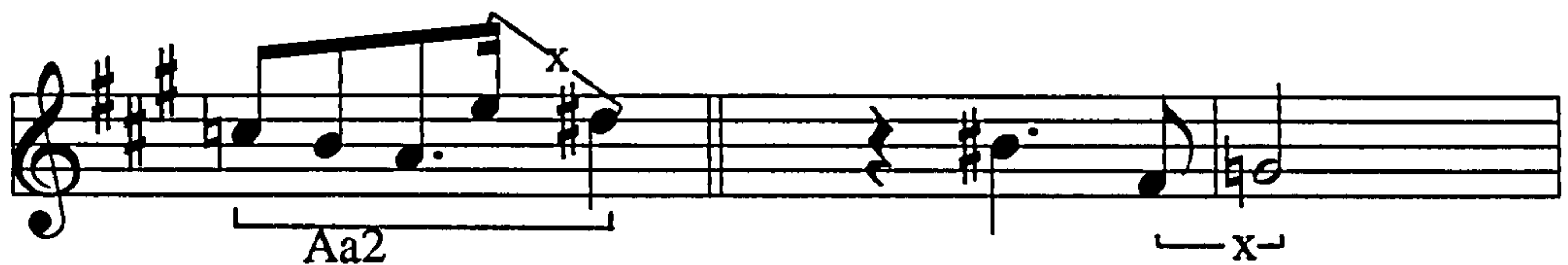
The maturing of the Aa2 *Urmotiv* into Aa2(1) comes about through the necessity for Schoenberg to retain a connection with the original tonality despite the cursory swing to the mediant minor: the d# in bar 9/3 diverts the harmonic progression to V minor of the original key, as is borne out in the following bar. So it is possible to view the motivic process here as being influenced by tonal demands. However, it is also possible to interpret the process as motivated by the strength and pervasiveness of the opening semitone (interval 'x') and the boundary interval ('y'), both on and beneath the surface of the music.

# Ex. 4.2.19 (Op.10/1)

Interval 'x' (Ex. 4.2.19) is predominant in the second section (beginning bar 12) where the viola melody imitates the previous vln 1 phrase extension, a' - g#, in bars 11 - 12.

The continuation of the viola melody in bars 14 - 16 shows a further association with the mature Aa2(1) motive-form through the tritone/semitone group. Intversion of notes 2 and 3 of the motive permits consistency of shape within the new melody. Repetition of the phrase modifies the Aa2 *Urmotiv* in the rhythmic context of the second sentence (Ex. 4.2.20).

Ex. 4.2.20 (Op.10/1)



The melodic line is then resumed by vln 1 which repeats the viola's phrase for eight of the thirteen bars. The differing paths which the consequents take are shown in example 4.2.21. Here a long-term pitch association with the A and C of bars 1 and 9 (vln 1) respectively can be observed. The conflicting identity of the ultimate interval in these two phrases generates an alternation of semitone and tone in succeeding thematic-motivic material to be discussed later.

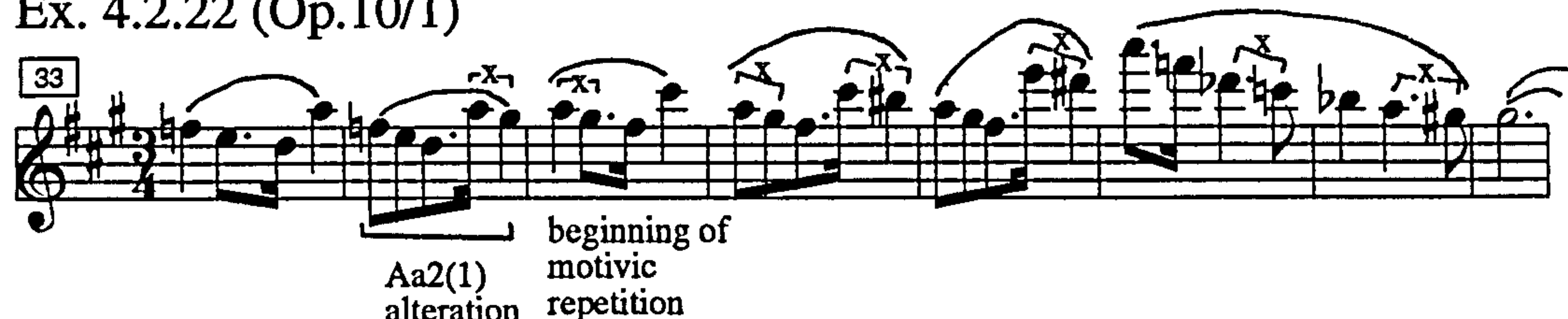
Ex. 4.2.21 (Op.10/1)



The return of the opening material in the submediant minor (bar 33) performs a dual function: firstly, an association with the augmented triad formed in bar 3 (c#-a-f) complemented by the strict imitative entry of vln

1 in bar 35 (Ex. 4.2.22); secondly, it permits the complementation of the augmented triad by virtue of the fact that the modified *Aa2 Urmotiv* (that is, *Aa2(1)*; see also Ex. 4.2.22) begins and ends with the 'x' interval, and, due to the nature of the intervallic properties of the entire motive-form, thus creates a direct pitch relationship with the imitative entry.

Ex. 4.2.22 (Op.10/1)



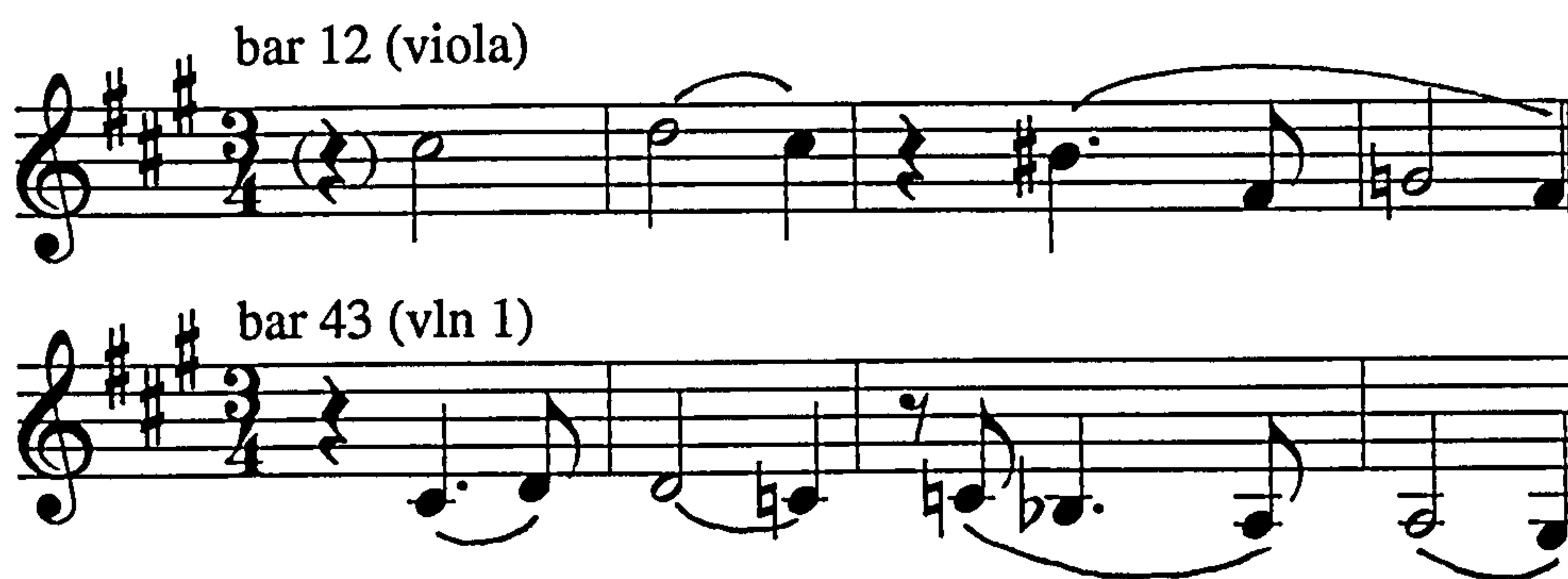
The entry in bar 35 extends the two-bar phrase to three in the same manner as before (cf. bars 35 - 37 with bars 8 - 10). The continuation in bar 38 employs the same augmented triad as before but in a different inversion which results in an opening note of  $a''$  and a final phrase note of  $g\#'$  (in bar 40), an expanded version of the  $a'' - g\#''$  in bar 12, as well as a repetition of bars 3 - 5. The opening paragraph to bar 40 can be seen to develop two rhythmically contrasting thematic constructs: theme A bars 1 - 12, theme B bars 12 - 33 (bars 33 - 40 return of A). A common salient feature is the initial semitone which becomes a referential motive for surface and 'submotivic' levels in the music, generating local development within the thematic materials and forming more distant relationships between them.

Bars 40 - 43 form a short transitional passage of falling sixths (mainly) modelled on the similar falling sixths in bars 5 - 6 (viola and cello) which stem from the 'y' interval. The semitonal movement of the three lower parts across bars 39 - 40 results in a chord of two superimposed 'y' interval cells whose harmony is altered at the beginning of bar 43 by the 2nd vln B natural, itself a result of movement modelled on *Aa1*.



The 'Zeitmass' heralds a *developing variation* of the B thematic material.<sup>10</sup> The comparison in example 4.2.23 reveals the rhythmic similarity, with only minor alterations to up-beat bars.

Ex. 4.2.23 (Op.10/1)



The intervallic construction of the new theme consists of alternate semitones and tones. This feature reflects the tension between the *Grundgestalt*'s original intervallic content and the 'mature' form of Aa2(1) which spawns the first conflict between bars 21 (viola) and 33 (vln 1). Bars 48 and 49 break the semitone/tone pattern, reintroducing the 'y' interval, and follow through with the melodic shape from bar 32, using the same pitches but in an expanded rhythmic form. Example 4.2.24 shows how, in the third phrase from bar 53 - 59, the 'x' interval dominates in a rising and falling minim - crotchet rhythm leading into the final motivic development in the thematic jigsaw, bars 58 and 59.

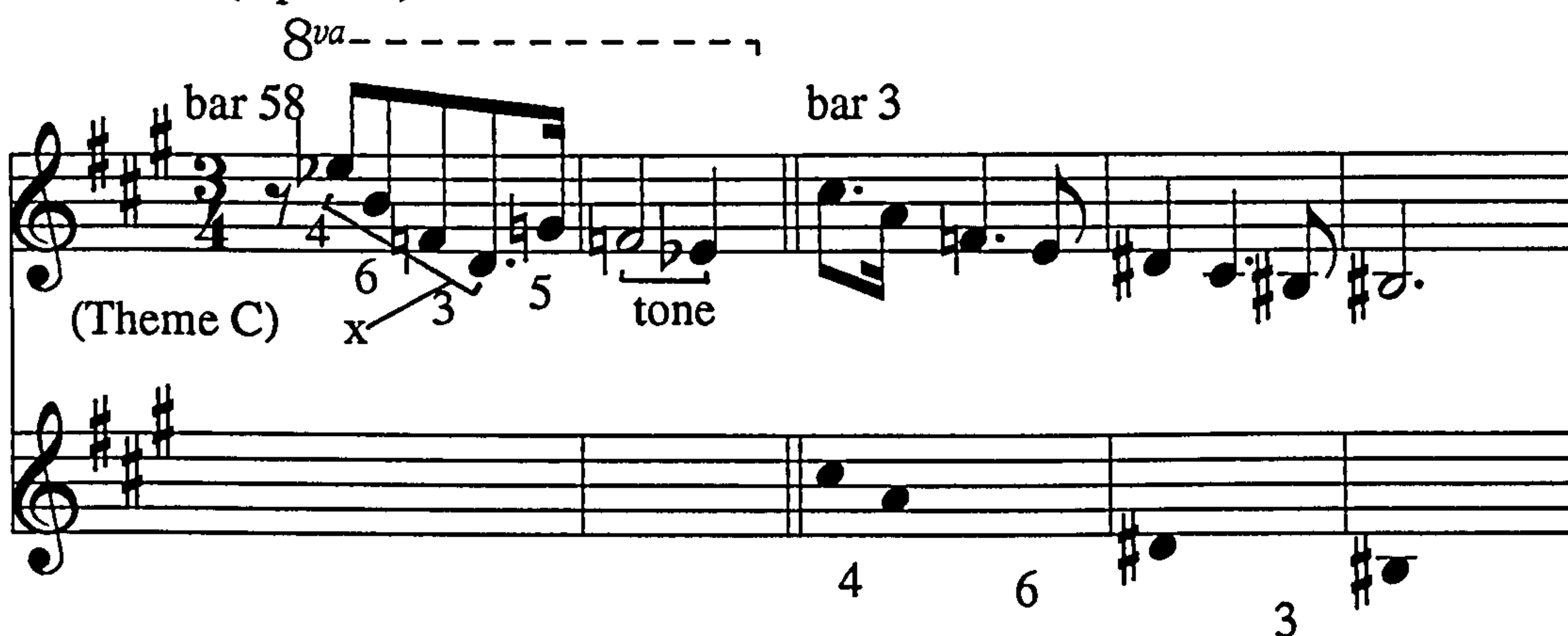
<sup>10</sup> In his commentary on the close relationship between the theme at bar 43ff. and that of bars 12ff. Walter Frisch states that the 'similar themes in the middle of the first group and then at the beginning of the second group...[are] ..a deliberate attempt to overturn the normal associations or conventions of thematic dualism'. (Frisch: *The Early Works of Arnold Schoenberg*, p.261) Far more interesting to the present study, however, is Frisch's reaction to the length and content of the exposition of the Quartet. He concludes (on p.262) that 'we are thus forced, or invited, to hear beyond the 43 measures to a larger two-part design, A B A'B', in which each part begins unstably and moves to a more stable theme.' This reflects the idea of 'parallel' *developing variation* posited in the previous analysis of the Op.7 Quartet (see p.113 footnote 9, of this study).

Ex. 4.2.24 (Op.10/1)



These two bars comprise the third thematic motive, C, again constructed around the semitone/tone alternation (Ex. 4.2.25). The dotted quaver - semiquaver figure leading across the bar line is aurally the most salient feature and links this motive-form rhythmically to the *Grundgestalt*.

Ex. 4.2.25 (Op.10/1)




The distribution of tones within the 'x'-motivic interval spanning bar 58 constitutes a major third followed by a tritone then a minor third, or numerically (in semitones) as 4,6,3. This intervallic framework can be traced back to the unfolding of the 'x' interval across motive-forms Ab1+2 in bars 3, 4, and 5.

There is a further, more obscure relationship between this motive-form and the Aa2 part of the *Grundgestalt*, other than the rhythmic similarity

and motivic-intervallic substructure. Example 4.2.26 shows the intervallic shape of bar 58, devoid of rhythm, followed by a re-ordering of the pitches which yields a similar contour to the *Grundgestalt* (or rather, the Aa2(1) motive-form).

Ex. 4.2.26 (Op.10/1)



bar 58

(order nos.) 1 3 5 2 4 1 2 3 4 5 1 2 3 4 5

Ex. 4.2.27 (Op.10/1)



bar 151

(order nos.) 1 3 5 2 4 1 2 3 4 5

Ex. 4.2.28a (Op.10/1)



bar 218

(order nos.) 1 3 5 2 4 1 2 3 4 5

The intervallic relationships are not exact in the initial motive, pitches 3 and 5 being a semitone too low. This is the preferred motive-form used in the work, being modelled on Ab1+2 until the appearance of a variant which fits the intervallic mould exactly, in bar 151 (Ex. 4.2.27).<sup>11</sup> The motive-form appears four times between bars 150 and 153, first as a variant prefatory to the second 'exact' model; the third replaces the initial minor 3rd of the second with the original major 3rd, and the fourth reinstates the original motive-form from bar 58. The motive-form does not appear again until the closing section of the movement where it is stated

<sup>11</sup> Walter Frisch remarks that the relationship between motive C and the Aa2 motive of the *Grundgestalt* is made more explicit in bars 146 - 151 in view of their juxtaposition. (See W. Frisch, *The Early Works of Arnold Schoenberg*, p.262).



in 'tonic' form (Ex. 4.2.28a) in bar 218. Save for the two occurrences of the motive-form in bars 219 and 221, the stated form in bar 218 remains firm until it is liquidated to a semitone dyad which finally ends the movement.

Further corroboration for the re-ordering of pitches that establishes this motive-form can be demonstrated by reduction of the *Grundgestalt* to the six pitches which occur on the three beats of each of the first two bars. The deciding factor that then reverses the order of the two bars is the necessity for the pre-established 'x'-motivic rhythm (minim-crotchet, bar 57) to retain continuity by laying the foundation for the new motive-form in bar 58. In other words, the opening 'x' interval rhythmically stretched across the bar, dictates the distribution of notes 1 and 2 and therefore has an effect on the redistribution of the others within the new rhythmic framework (Ex.4.2.28b). So it would appear that this third motive-form occurs as a derivative of Ab1+2 (bars 3 and 4) simultaneously with an embryonic existence as Aa2.

Ex. 4.2.28b (Op.10/1)

The image displays a musical score for three staves, illustrating the relationship between different sections of a piece. The top staff, labeled 'bars 1 - 2', shows a sequence of notes with pitch numbers 1, x, 2, 4, 1, 3, 5 indicated below. The middle staff, labeled 'bar 218', shows a sequence of notes with pitch numbers 1, 3, 5, 2, 4 indicated below. The bottom staff, labeled 'bars 57 - 58', shows a sequence of notes with pitch numbers 1, 3, 5, 2, 4 indicated below. A dashed line labeled '8va' connects the middle and bottom staves. The bottom staff also features a bracket labeled 'x'-motivic rhythm' with pitch numbers 1 and 2 below it. The notation includes treble and bass clefs, a key signature of three sharps (F#, C#, G#), and a 3/4 time signature.

To summarise, the first movement of the Second Quartet is constructed around three thematic motive-forms A, B, & C, all of which derive from the *Grundgestalt*. The second of these motive-forms divides into two namely, B and B1, the similarities and differences of which have been discussed above. The occurrences and interaction of these four motive-forms shape the movement as a whole and are summarised below:

Table One

Bar	motive-form
1 - 12	A
12 - 33	B
33 - 40	A
40 - 43	Trans
43 - 57	B1
58 - 70	C
70 - 82	C1
82 - 86	C
87 - 89	A
90 - 106	A + C
106 - 145	B1 + C
146 - 159	A + C
159 - 186	B
186 - 195	A (+ B)
196 - 201	B1
202 - 214	B
214 - 218	Trans
218 - end	C (+ B1)

The first division in the summary indicates the point at which the motive-forms begin to combine, though it would not be correct to describe this as the development, nor even the *Durchführung*. The second division indicates the location which Schoenberg identifies as the recapitulation<sup>12</sup>.

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<sup>12</sup> Schoenberg, *Schoenberg, Berg and Webern, the String Quartets*, ed. U. Rauchhaupt (Hamburg, 1971), p.45.

Erwin Stein<sup>13</sup> disagrees with this placement (as mentioned above) taking bar 159 as his 'Coda (quasi recapitulation)'. His (Stein's) decision could be supported indirectly by Schoenberg himself in his *Notes on the Four String Quartets* where he mentions 'changing the order in a recapitulation' as being an observable feature. Stein's recapitulation begins with theme B, with theme A not occurring until bar 186. The third division marks the point at which I believe that the coda begins. Two reasons for this would be a) the pedal note in the cello part, preceded by b) a '*viel langsamer*' section which liquidates the B1 motive-form. It is also possible, however, to read the '*viel langsamer*' bars 196 - 201 as a six bar transition to the coda at 202.

It would be misleading to mark Schoenberg as right and Stein as wrong, since Schoenberg makes a number of errors in his analysis of the first movement<sup>14</sup>: firstly, he states that the 'subordinate theme [see Ex. 4.2.19, second stave] which occupied much of the *Durchführung* is not recapitulated', yet it recurs in bars 195 (vln 2) and 196 - 201 (cello); secondly, he states that the C motive-form (his example 18, bars 58-9) 'reappears only in the coda', yet it appears in bar 150, only four bars after Schoenberg's recapitulation begins; thirdly, his F major recapitulation only involves the first two bars of the *Grundgestalt* and not the other two (i.e., bars 3 and 4) and this second part of the *Grundgestalt* (Ab1/2) does not reappear until bar 192 (cello). So Schoenberg's analysis is not without fault. Discarding Schoenberg's analysis does not, however, make the task of defining the formal structure any easier. Schoenberg has already ruled out the 'traditional *Durchführung* or development section' and appears to intimate that 'developing contrast' is achieved by contrapuntal means,<sup>15</sup>

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<sup>13</sup> E. Stein, Synopsis of form in Phiharmonia Score (no.229) of Op.10 Quartet.

<sup>14</sup> Schoenberg, op. cit., p.45.

<sup>15</sup> Ibid., p.44.



though he goes no further than this in an explanation of the workings of the movement. It is clear that a term like 'development' in the traditional development section sense<sup>16</sup> is incompatible with Schoenberg's ideas, but at the same time, some process or other must take place in his music in order to create a logical musical discourse, even if that process is not recognisable as a traditional formal layout. The motive-forms exposed above have been shown to be linked to the opening *Urmotive* which comprise the *Grundgestalt* of the work. Investigation of the stages through which these motive-forms progress, and how they combine to create the musical discourse, may well provide the solution to the formal problem.

### Motivic Progressions

The thematic chart maps the appearances of motive-forms A B and C, together with two subsidiary motive-forms, namely B1 and C1. The first twelve bars of the work seek to establish the mature motive-form Aa2(1) and to unfold the two important intervallic properties of the *Grundgestalt* labelled 'x' and 'y' (the semitone and major 3rd respectively) in all voices of the music. In bar 12, the development of theme A is diverted by the installation of theme B which grows out of the 'x' interval and is a Class 3 Development of the Aa2(1) in that it retains both boundary and internal intervals from the original.

The musical development to bar 60 has already been dealt with save for a categorisation of the other thematic motive-forms. At bar 43 theme B1 is established. Its contour and rhythmic similarity put it in the 'Fixed' category: since it shares neither internal nor boundary intervals with B, but only the opening and closing semitone, it falls into Class 2. The thematic

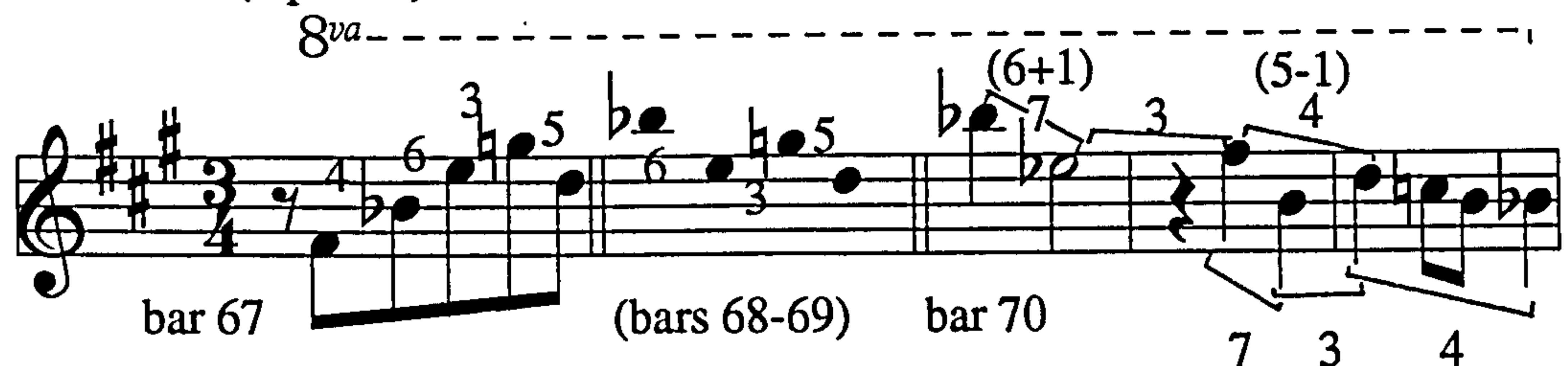
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<sup>16</sup> That is, the treatment of detailed phrases and motives of a previously heard theme in such a way as to make new passages, often of a modulatory nature.

motive-form C retains contour, internal and boundary intervals with its precursor Ab1+2 and can be classified as Developed: Class 1.

Transformation of the *Urmotive* does not occur in this first movement. The work continues in bar 60 with repetitions of the C motive-form (Ab1+2(1) ) accompanied by sforzandi based on the Ab1 augmented triad motive. The third repetition, occurring in bar 61, is an inversion which leads to the eventual development of the C theme into C1 at bar 70 (Ex. 4.2.29). The internal intervals are altered by lowering the middle two notes by a semitone (a similar process is applied again to the C motive-form later in the movement; see p.129 and Ex. 4.2.31) and the rhythm is altered to crotchet - minim (bar 70) placing the development of the new motive-form into the Developed: Class 2 category.

Ex. 4.2.29 (Op.10/1)



In general, the accompanimental lines from bar 66ff. tend to be built from small motivic cells based either on those which accompany the *Grundgestalt* (particularly the rising tones/semitones in vln 2 bars 1 & 2), or on imitation of more immediate motivic intervals from the main melodic line: much of the contrapuntal movement in the viola and vln 2 parts is semitonal while the bass line structures itself on the Aa1 motive. In bar 70 the lower voices imitate the falling fourth (viola and vln 2) and fifths (cello) in the C1 motive-form. Further variants of Aa1 in vln 1 bars 75 and 76 link to a repeat of the C1 theme which then leads to a liquidation of the falling semitonal groups and of the Aa1/2 motive-form.

Bar 90 reinstates the A motive-form imitated at the major 3rd by vln 2 who takes up the motive in a quasi-cadenza controlled by the accompanying C major chord leading to a further caesura. A second statement leads to a series of C motives which have been altered internally, recategorising them as C(1) Fixed: Class 1. Liquidation of C(1) gives way to what Schoenberg called a 'developing contrast' in which he employs B1 and its inversion in imitative counterpoint on cello and vln 1 respectively (bar 106 ff.).<sup>17</sup> The remaining voices interject fragments of the motive-form. Motive-form C returns in combination with B1, and effects a further liquidation, similar to that occurring in bar 80ff., which leads to a further episode of the B1 inversional canon. Vln 2 shadows the vln 1 *comes* whilst the viola provides the *dux* and the cello a bass part modelled on Aa1. The descending part of the original motive-form provides a continuation in stretto during which the opening major 3rd of motive-form C is reinstated until that motive's full reappearance at bar 140. Liquidation of motive-form C leads to the Schoenbergian 'recapitulation' at bar 146, which occurs on c' as a starting note in the viola as well as on F in the cello in augmented canon. The opening c' is displaced up an octave by further variants of Aa2(1) for the continuation with the C motive-form at bar 150, which occurs above an augmented A motive-form on the cello at original pitch (beginning on A). The falling segment of B1 again serves to close the phrase as motive-form B is finally restated (dare one say recapitulated?) with the same textural accompaniment as before, although the invertible contrapuntal voices have changed positions. The B motive-form is allowed musical space in which to recapitulate in its entirety. This time both phrases in the section end with a falling tone, however, forcing an overlapping continuation which concentrates on the rising fifth and connects the two original phrases (Ex. 4.2.30) labelled B(2).

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<sup>17</sup> Schoenberg, op. cit., p.44.



Ex. 4.2.30 (Op.10/1)

The image displays three staves of musical notation. The top staff is labeled 'bar 165 (cello)' and 'bar 177 (cello)', showing a cello line with various notes and rests. The middle staff is labeled 'bar 181 (viola)' and 'B(2)', showing a viola line with a series of notes and rests. The bottom staff is labeled 'bar 187 (vln 1)', showing a violin line with a series of notes and rests. The notation includes clefs, key signatures, and various musical symbols such as notes, rests, and bar lines.

Further interjections of the initial semitone oscillation lead to a stretto passage of A motive-forms accompanied by diminished (semiquaver) versions of the B(1) motive-form. The cello completes the restatement of the opening theme in bar 192, which completes the recapitulation of both its 'A' parts (Aa and Ab). The following passage drains away the residues of the B1 motive-form in the cello whilst the upper three parts reiterate the semitone oscillation to bar 202. This final section is led by the viola playing the second phrase version of motive-form B with compound semitone leaps in 204 and 206 transferring the opening fifth up an octave by bar 208. This then reverses itself and closes the phrase with the chromatic steps inherent in the surrounding polyphony. The transitional passage at 214 serves to close the unresolved harmony from the first beat of 214 and to reintroduce the 'y' motive in preparation for the C motive-form. Together with an inversion of the B1 motive-form the C motive-form closes the movement, being reduced in the last instance (that is bars 229 - 230) to the predominant *Grundgestalt* intervals of a minor 2nd, a major 3rd, and (ascending) perfect 5th (Ex. 4.2.31).

Ex. 4.2.31 (Op.10/1)

229

rising 5ths

y

x

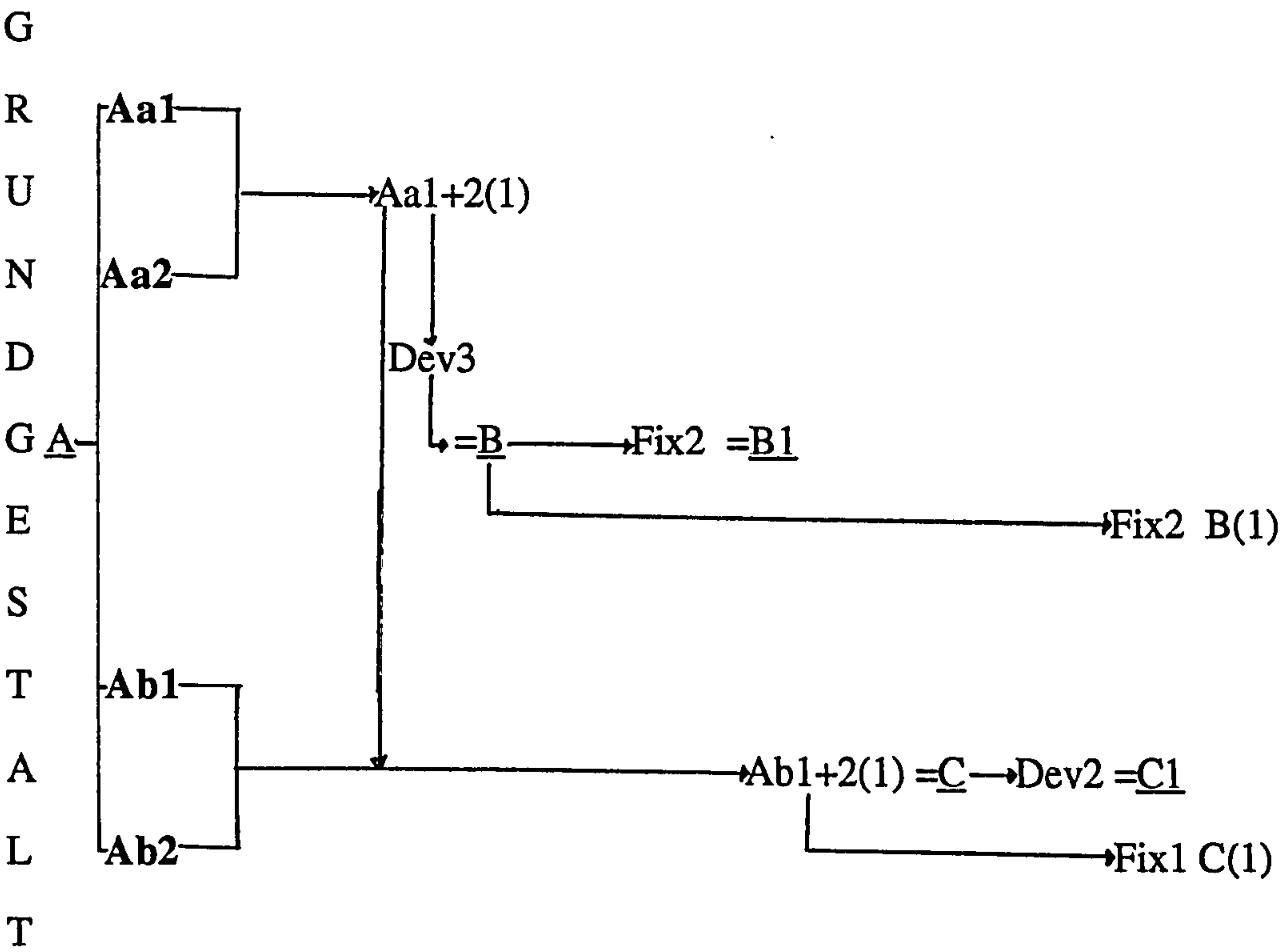
x

x

x

From the above analysis, one can conclude that Schoenberg does very little to develop the motive-forms once the basic five - A, B, B1, C, and C1 - are established. The classes of development are different for each motive-form: B, for instance, is a class 3 Development from A, which differentiates it enough to create surface contrast and warrant a different thematic label. A table of the progressions is below.

Motivic Progressions Op.10/1



It would appear that the primary motive-forms in the first movement are developed from the *Grundgestalt* source, either directly in the cases of A

and C, or indirectly in the case of B (and B1, C1). Again the *Grundgestalt* in its entirety is preserved and not used as a motive-form: it is subdivided into *Urmotive* which are subsequently 'matured' to motive-forms (A, B and C). The movement as a whole contains little in the way of development of the motive-forms; they are all subject to repetition at varying pitch levels and insignificant variation.

The formal issue is still a contentious one, although Schoenberg's pinpointing of the recapitulation at bar 146 looks to be a more convincing assumption than Stein's at 159. The recapitulation of the opening thematic material straddles motive-form B, which may be the reason for Schoenberg's vague comment on the distribution of themes in the recapitulation. It is from bar 146 onward that all the thematic material is heard in the original order with only a reiteration of B at the beginning of the coda. The development section, if this is indeed a valid concept here, occurs from the *beginning* to bar 60, at which point the primary motive-forms have been established. With regard to the motive-forms used in this first movement Schoenberg's term *Durchführung* is only partially applicable. Themes A and B are not 'durchgeführt': theme A does occur at bar 90ff. but in its original key (+submediant minor) and follows no sequential pattern to lead it through the musical discourse. The *Durchführung* really only comprises themes C and B1, which is hardly a working out of the primary motive-forms. It seems as though Schoenberg is not attempting to create a closed form, i.e., one that has worked through the inherent possibilities of the motive-forms of the movement. This must surely be the case, in view of the disproportions, both in the lengths of the three divisions (Exposition: 60 bars, Middle section: 85 bars, Recapitulation + coda: 91 bars) and in the use of the motivic material. He has certainly left stones unturned and sought to establish the primary



motivic shapes with a view to further development and *Durchführung* in other movements of the work.

#### 4.2.2.2 Op.10/2

In Chapter 2 it was stated that the thematic constructs of the second, third, and fourth movements of the Op.10 Quartet were derived in differing ways. The second movement marks a new induction of thematic constructs derived directly from the *Grundgestalt*.

This form is built by numerous quotations of three thematic characters, their derivations and variations, which fulfill many structural tasks after being formulated accordingly. They all present themselves in an introduction, which, short as it is, does not fail to prepare them for forthcoming development.<sup>18</sup>

Schoenberg's three thematic characters are the viola line in bars 20 and 21, the vln 1 line in bars 35 - 39, and the vln 1 line in bars 65 - 68. These three ideas appear in the introduction, as Schoenberg says, and can be found in example 4.2.32.

Ex. 4.2.32 (Op.10/2)

bar 5 (vln 1)      bar 14 (vln 1 & viola)      bar 17 (vln 1)

bar 20 (viola)      bar 35 (vln 1)      bar 65 (vln 1)

Whilst they may be the three thematic characters in the movement, they are not three separate motive-formations: As example 4.2.32 shows, the two motivic intervals 'x' and 'y' are integral to both the construction and

<sup>18</sup> Ibid., p.45.

interrelationship of these motive-forms. The initial motive-form (D) appearing in vln 2 bars 5 and 6 (Ex. 4.2.33) scurries from its starting point A up to c# and finds rest on d, spanning the two intervals 'y' and 'x'. Presentation of the 'x' and 'y' motivic intervals in motive-form D as boundary intervals serves to anticipate - in an introductory manner - the use of the two intervals in the tighter construction of later motive-forms.

Ex. 4.2.33 (Op.10/2)

bar 5 (vln 1)

bar 5 (viola)

symmetry

Its internal construction of rising fourths and falling thirds otherwise seems a little arbitrary in context of the present theory, until one considers motive-form D together with the viola line (motive-form E, Ex. 4.2.33). Motive-form E begins with the opening three notes of the *Grundgestalt* (labelled Ea) and continues by repetition of the 'x' interval, labelled 'Eb', eventually spanning interval 'y'. Both motive-forms have the same starting point, initial interval ('x') and span the 'y' interval symmetrically about the initial A (see Ex. 4.2.33). Example 4.2.34 shows a harmonic reduction of the two lines and it would appear that, apart from the symmetry of motive-form D (shown in example 4.2.33), its construction reflects and confirms the potential harmonic implications of the other motive-form (E).

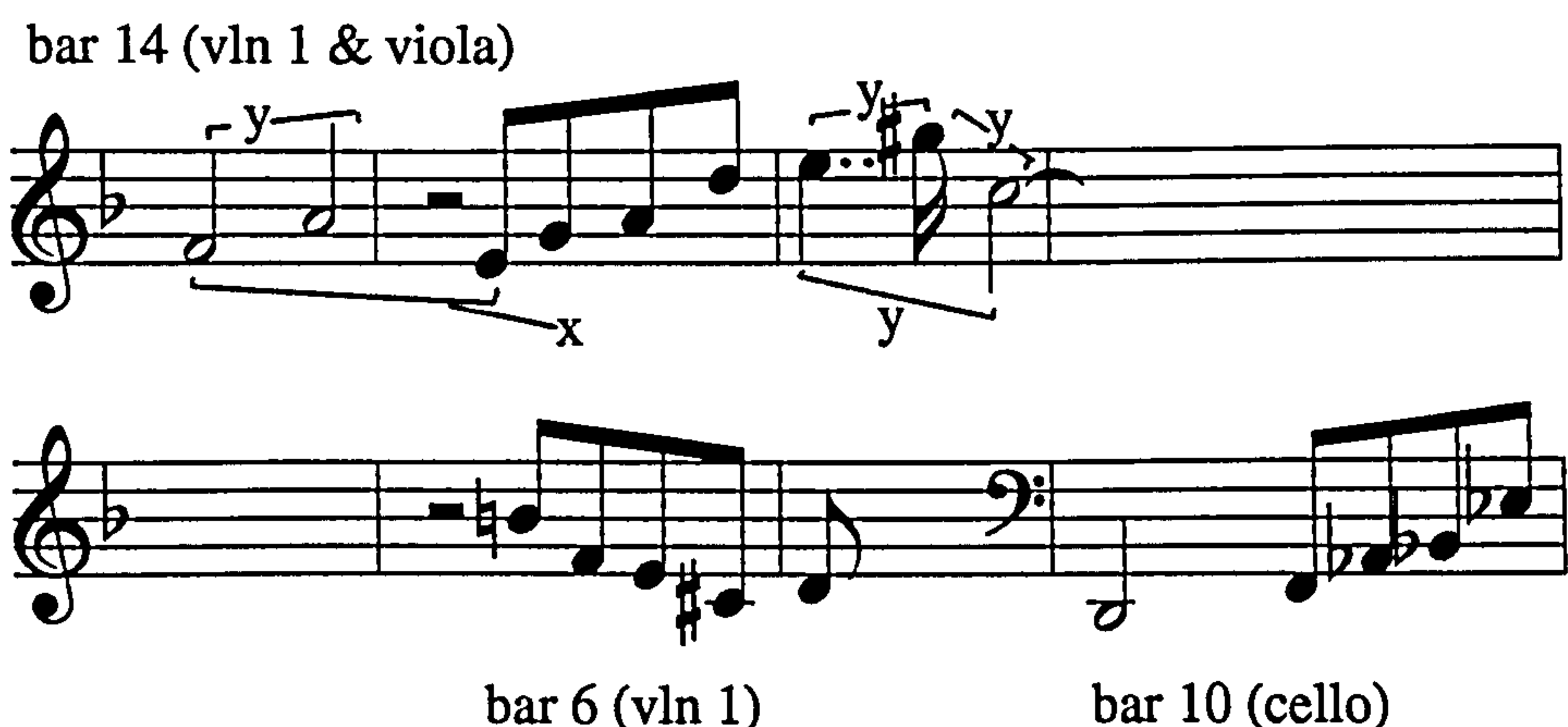
Ex. 4.2.34 (Op.10/2)



It will also be seen that melodically subordinate motive-form E has a more far-reaching effect than motive-form D.

The octave displacements of motive-form E on its repetition in bars 7 and 8 are shadowed by off-beat quaver notes in vln 2, which become an important part of the future development of E. The development of motive-form D is only slight (in fact it remains 'Fixed') and will be dealt with as the diachronic analysis demands. It does have one important offshoot however, the thematic material in Ex. 4.2.35, which appears first in bars 14 - 16.

Ex. 4.2.35 (Op.10/2)



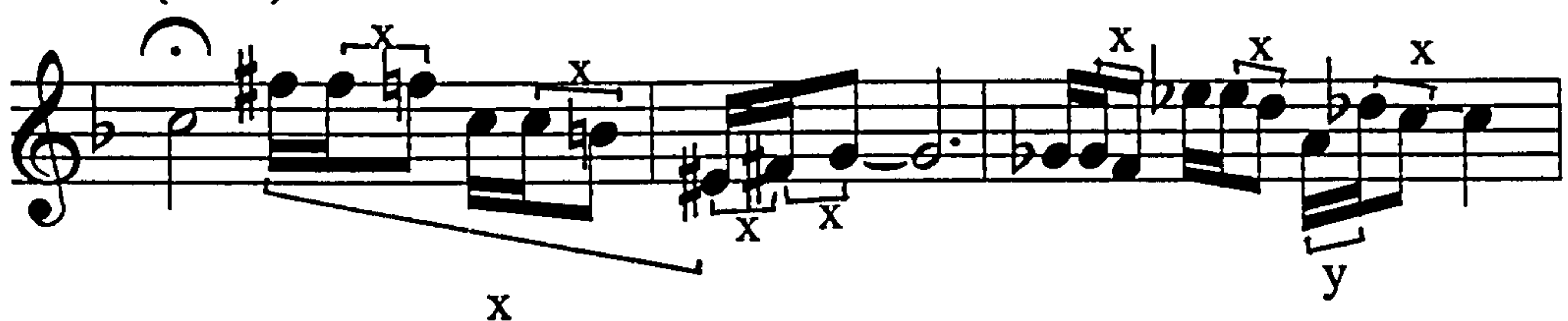
The 'y' interval in motive-form E creates cadences on f with each repetition (see bars 7/1 viola, 9/1 vln 1, 11/1 vlms 1 & 2); the descent of the vln 1 line to f' in two successive cadences effects an alteration in motive-form D in bar 11 which produces a further cadence on f. The alteration, which is simply a step up from the preceding g#-c# rather than a descent from the c#, creates a new cadential motive at the end of motive-form D (vln 1, bar 11/3+4). The importance of this ending is reinforced by the



rising figure in the cello in bar 10, which mirrors the motive and which pre-determines the future of the motive-form. In bar 14, the new motivic construct is straddled by 'y' interval figurations related semitonally (Ex. 4.2.35). The new motive-form, built from 'x' and 'y' intervallic relations, together with the tail end motive-form D, is denoted as motive-form D1. This is immediately followed by another new motive-form based on motive-form E (Ex. 4.2.36). Again it spans one of the motivic intervals, in this case, 'x'. The only occurrence of the 'y' interval in this motive-form (E1) is at the pitches a and d $\flat$ , forming a further association with the original f - a - c $\sharp$  *Ab1 Urmotiv*. The music to bar 19 contains all the material for the movement, which is developed from this point onwards.

Ex. 4.2.36 (Op.10/2)

bar 17 (vln 1)

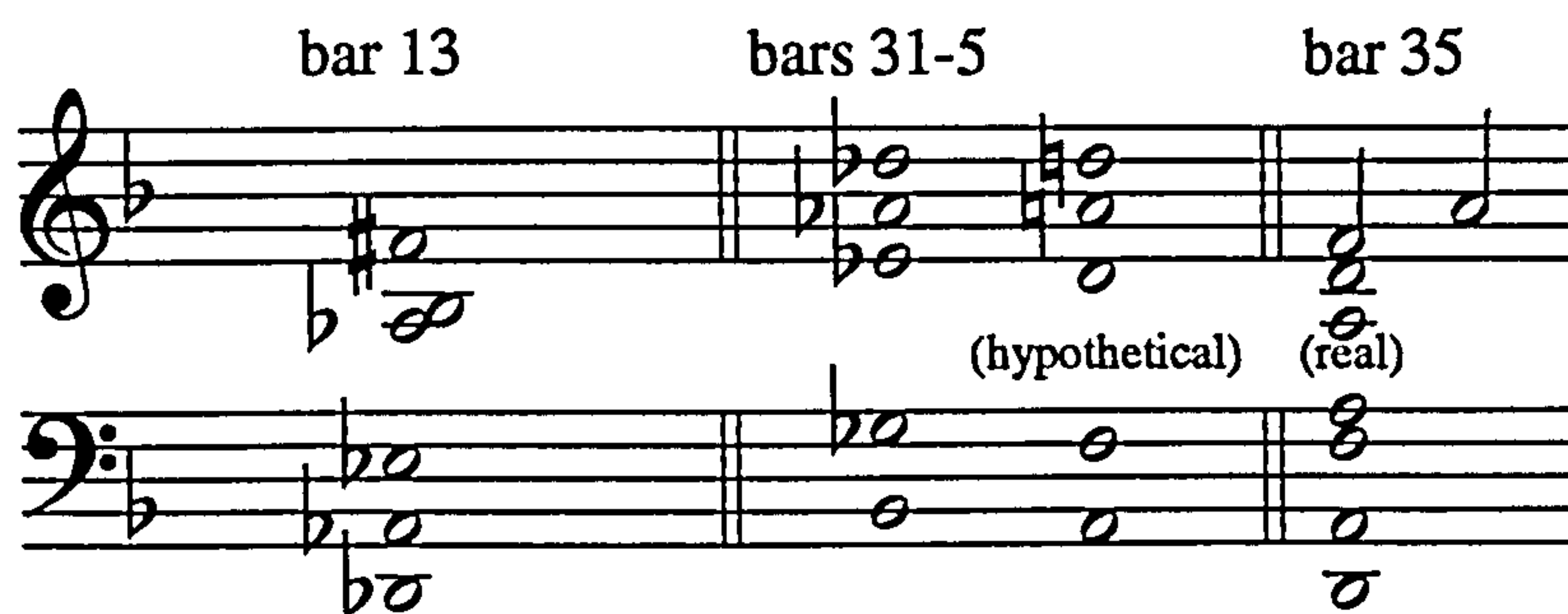


The first of these developments occurs to motive-form E in bars 20 and 21 (vlns 1 & 2): the contour and intervals of both Ea and Eb are retained in bar 20, although the repetition of Eb in bar 21 creates a new boundary interval spanning an overall distance from a' - c $\sharp$ '. The boundary change and rhythmic alterations designate this motive -form as Developed: Class 2. If the motive-forms Ea and Eb are considered separately, however, the resultant development does not alter the boundary interval, therefore categorising both motive-forms as Developed: Class 1.

Motive D remains unchanged until bar 26, where the viola's imitation of vln 1 culminates in a reversing of the final dyad from e'-f' to f'-e'. Subsequent repetitions of the motive-form elevate the dyad to a $\flat$ "-g" in bar 31. The accompanying harmony to the alternating dyads in bars 31ff.

forms the same chord as the final sonority of bar 13, which effected a transition between the initial presentation of the D and E motives, and the occurrence of D1 in bar 14. Here (bar 34) it performs a similar function, as the semitonal resolution of the chord serves as a backdrop to the recurrence of D1 in bar 35 (Ex. 4.2.37).

Ex. 4.2.37 (Op.10/2)



The D1 motive-form is repeated several times, and the ultimate 'y' interval is expanded to a fourth in bar 46 by virtue of the rising initial note  $b\flat'$  -  $c\flat''$ . The 'y' interval is restored at the top  $f''$  in bar 49, due to the  $c\flat''$  in bar 46 rising in semitones to  $d\flat''$  by bar 48 and finally up a major third to  $f''$  (Ex. 4.2.38).

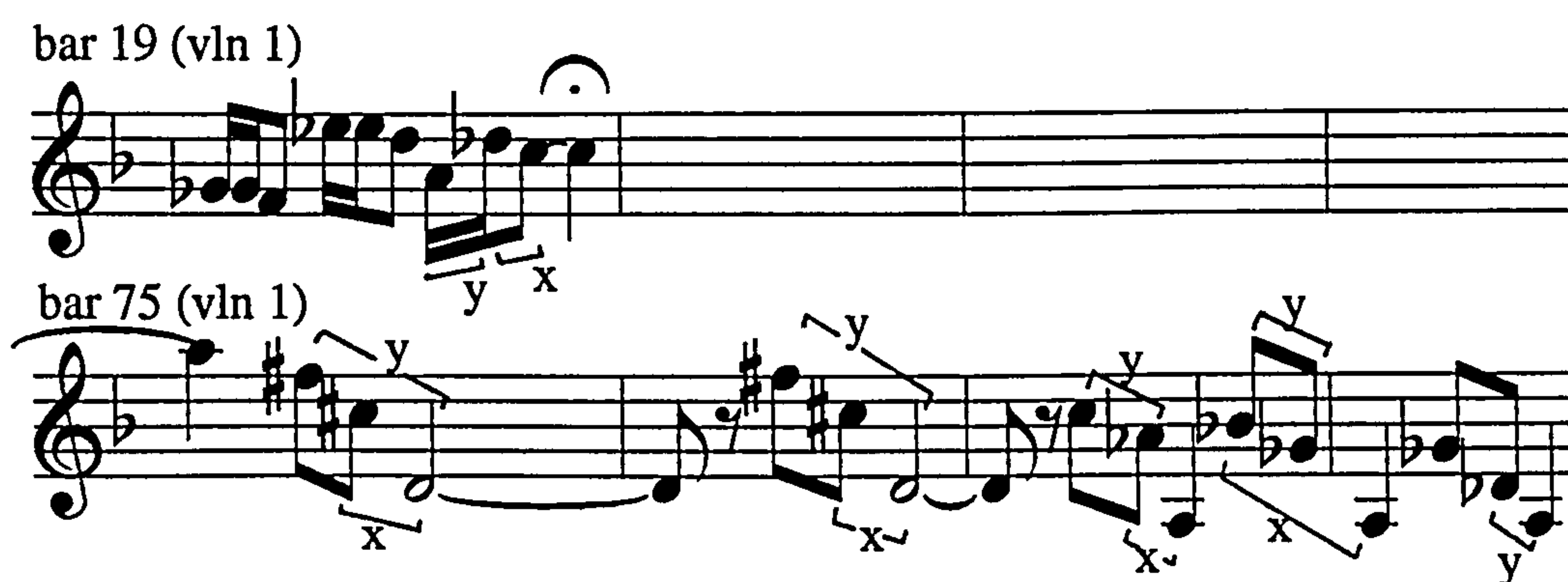
Ex. 4.2.38 (Op.10/2)



From bar 54 to 62 the D1 motive-form is subject to a network of imitative repetitions which liquidate it. Thus far the motive-form has been subject only to repetition or expansion of intervals, which categorises those appearances as Fixed: Class 2.

After a caesura, motive-form E1 is re-introduced on the viola in bar 62, with interjections of D1 motive-forms from vln 1. This musical 'punctuation mark' associates itself with the earlier occurrence at bars 17 - 19, being almost entirely its repetition. A further caesura marks the beginning of a new section (bar 65ff.) which develops the E1 motive-form, modelling it on the octave-displacing version of E from bar 7. This form ( E1(1) ) subsequently becomes an important link between the main sections of the movement. The octave displacement of the second note of each motivic cell categorises the new motive-form as a Developed: Class 1. Repetitions of the motive-form continue until bar 75, where a variant of the 'y' + 'x' motivic cell (associating with vln 1 bar 19/3) creates a liquidation of the motive-form (Ex. 4.2.39).

Ex. 4.2.39 (Op.10/2)



At bar 81 the cello and the viola both initiate reiterations of theme D. The rhythmic augmentation in the cello version gives it a lyrical prominence and dominion over the viola. The rhythmic evenness of the original is altered in the cello version by the lengthening of every fourth note. This effectively divides the main phrase into four smaller cells. Overall, the rhythm, internal intervals and boundary intervals of the phrase are altered, making the cello theme a Developed: Class 3 version of D. However, if



each four-note cell is taken individually, with the exception of the second (which remains Developed: Class 3) the cells are Developed: Class 1 versions of the original. The viola version is an exact repetition with regard to pitch, contour, internal and boundary intervals. The only change made to it is the rhythmic delimitation of four-note cells as in the cello version, which also creates a Developed: Class 1 categorisation.

At bar 98 two new motive-forms are established. Both are derived from the *Grundgestalt*. Motive F (vln 1), the descending semiquaver figure, is modelled on the opening of the work (the Aa1 *Urmotiv*), extended by the triplet figure, and repeated sequentially forming a chain of motives, initially unfolding an augmented triad (a succession of 'y' intervals). Motive G is presented by the cello at bar 100. Its ascending contour reflects the augmented triad unfolded by motive F and derives from the descending succession of 'y' intervals in bar 3 of the *Grundgestalt*, the Ab1 *Urmotiv*. The two-bar rhythmic pattern is repeated, this time outlining a derivation of the Aa2 *Urmotiv* (Ex. 4.2.40). The passage of music from bar 98 to 164 is essentially a *Durchführung*. The only development to occur is the rhythmic alteration of the G motive-form at 139, creating a Developed: Class 1 variant: variant, because its life is short-lived and its development has no consequences.

# Ex. 4.2.40 (Op.10/2)

bar 98 (vln 1)

Aa2 (rhythm)

At bar 165 Schoenberg quotes the Viennese street-ballad '*O du lieber Augustin*'<sup>19</sup>, accompanied by the E1(2) motive-form (vln 1). How Schoenberg integrates such a seemingly disparate element as a folk tune into the musical discourse at this point requires discussion. Its relationship to the *Grundgestalt* only becomes clear in retrospect. At the end of the folk tune phrase (which Schoenberg curtails to seven bars by overlapping the fifth bar of the original with the fourth) the vln 2 liquidates the opening motivic cell by sequential repetition. Gradual alteration of the internal intervals results in a motive-form at bar 180 which, due to its identical intervallic and contour properties and similar rhythmic pattern, associates it directly with theme B1 of the first movement (Ex. 4.2.41).

## Ex. 4.2.41 (Op.10/2)

bars 165-6 (vln 2)      bars 171-3 (vln 2)      bars 178-9 (vln 2)      bars 180-2 (vln 1)

"O Du liebe Augustin"

First movement: theme B1, bars 43-45 (vln 1)

<sup>19</sup> Ibid., p.46

The folk tune can therefore be understood as a Developed: Class 3 motive-form of theme B1. Further reference is made to the first movement in this section. In bar 187 the vln 1 overlaps the initial motivic cell of theme B with the second motivic cell (from bars 14 and 15, first movement) in the viola and cello (Ex. 4.2.42).

Bars 164 to 194 represent a reference to the B thematic constructs of the first movement, beginning with the most remotely related motive-form, '*O du lieber Augustin*', and ending with the closest reference of the overlapping of the B theme motives themselves.

The recapitulation of the scherzo restates the D, E, D1, and E1 themes, the last of which is once again varied rhythmically. E1(2) (bar 165) lengthened the last note of the three-note groups; here, E1(3) lengthens the middle note, eventually discarding the opening note (thereby losing the octave leaps), and creating another Developed: Class 1 motive-form.

The motivic progressions of the second movement are summarised on p.141. Theme D, which is a transformation of the Aa1 *Urmotiv*, is the motive-form most remotely connected to the *Grundgestalt*. Within the movement, Schoenberg does not develop it as much as the other motive-forms in order that it retains its identity as the 'main thematic reference' of

Ex. 4.2.42 (Op.10/2)

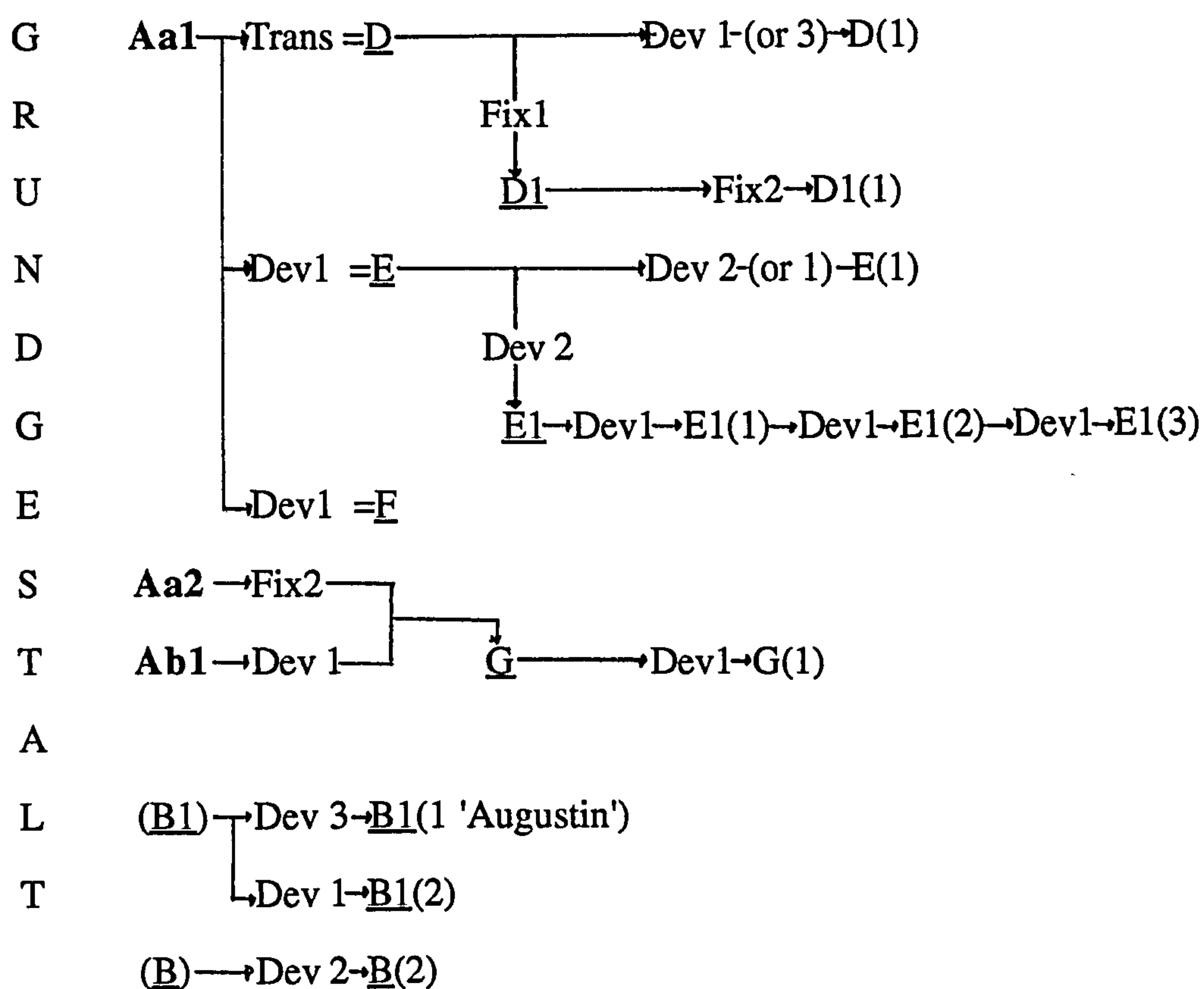
bar 12 (viola; first movement)

The musical score for Ex. 4.2.42 (Op.10/2) illustrates the overlap of motivic cells. The top staff shows bar 12 from the first movement in the viola, featuring a sequence of notes: G4 (quarter), A4 (quarter), B4 (quarter), C5 (half). The bottom staves show bar 187 from the second movement, featuring three staves: vln 1 (violin 1), viola, and cello. The vln 1 staff shows a sequence of notes: G4 (quarter), A4 (quarter), B4 (quarter), C5 (half). The viola and cello staves show a sequence of notes: G4 (quarter), A4 (quarter), B4 (quarter), C5 (half). Brackets indicate the overlap of the initial motivic cell of theme B (G4-A4-B4-C5) between the first movement (viola) and the second movement (vln 1, viola, and cello).



the movement. This minimal development allows the possibility of further development, particularly of D1 (a Fixed derivative of D), which is realised in the third movement. Theme E also develops from the Aa1 *Urmotiv*, although it is less remote than D. Like D, E is developed little throughout the movement. Rather it is its Developed: Class 2 derivative, E1, whose progression is most fully developed. Both D1 and E1 can be seen as the maturing of the D and E themes, which allows the originals both to retain identity (as D and E) and to develop (as D1 in the third movement, and E1 in the second).

### Motivic Progressions Op.10/2



#### 4.2.2.3 Op.10/3

The third movement, entitled *Litanei*, draws its thematic material from both preceding movements. Themes A, B, and C from the first movement and theme D1 from the second, are all presented in the first nine bars of the slow movement. According to Robert Nelson, this movement represents the elaboration section of the work as a whole.

Schoenberg considered the variations to be the elaboration section of the entire quartet. "The scherzo second movement has no elaboration," he said; "the first movement has little. Accordingly, here in the slow movement, I decided to expose my brain, through variations, rather than my heart."<sup>20</sup>

My analysis of the motivic progressions reveals that there is a certain amount of 'elaboration', that is, the *developing variation* of the motive-forms, in each of the first and second movements, despite Schoenberg's statement to the contrary. The only extensive *developing variation* is of a motive-form that is not used in the third movement, E (and E1).

The four motive-forms used to state the 'theme' of the variation movement are all rhythmic developments of their sources, which categorise them all as Developed: Class 1 motive-forms. According to my thematic labelling, they appear in chronological order: motives A and B overlap, followed by D1 and lastly C (Ex. 4.2.43). Each of the four motive-forms is repeated, fixed or developed in each of the variations. Formal divisions of the variations concur with those outlined by Catherine Dale, being articulated 'by motivic recurrence rather than by harmonic resolution.'<sup>21</sup>

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<sup>20</sup> R. Nelson, 'Schoenberg's Variation Seminar', *Music Quarterly* 50/2 (1964), p.143.

<sup>21</sup> C. Dale, *Tonality and Structure in Schoenberg's Second String Quartet, Op.10*, (London, 1993), p.172

**Ex. 4.2.43 (Op.10/3)**

Themes

1st movt. bar 1 (vln 1) 3rd movt. bar 1 (viola)

A

1st movt. bar 12 (viola) 3rd movt. bar 1 (vln 1)

B

2nd movt. bar 14 (vln 1 & viola) 3rd movt. bar 3 (viola)

D1

1st movt. bar 58 (vln 1) 3rd movt. bar 5 (vln 2 & cello)

C

3rd movt. bars 44-5 (vlns 1&2)

retrograde

4th movt. bar 1 (cello)

C2

The motivic progression table demonstrates the extent of the developments in the movement, which reveals a number of interesting points. Firstly, remoteness of all four motive-forms can be seen to increase as the movement unfolds, at least as far as the beginning of variation 5. Secondly, the increasing evolution of the motive-forms occurs to greater extent in C and D1, the two motive-forms which were developed least in the first and second movements.



Motivic Progressions Op.10/3

Var.	1	2	3	4	5	Coda
Bars	9 - 17	17 - 26	26 - 33	33 - 41	41 - 50	50ff.
<u>A</u>	Rep	Rep	Fix2	Dev2	Rep	Fix2
		Fix1	Fix2	Fix1		Fix2
<u>B</u>	Rep	Dev1	Fix1	Dev1		Dev2
	Fix1	Dev1	Dev2(?)	Fix1/Rep		Dev2
		Fix1				Fix1
<u>D1</u>	Rep	Rep	Fix1	Dev3	Dev2	Dev2
	Dev1	Fix2	Fix2	Dev1		Dev1
		Fix2		Dev3		Dev1
						Dev3
<u>C</u>	Rep	Dev1	Dev1(X6)	Dev1	Dev1	Dev1
	Dev1	Dev1	Dev2		Dev3	Dev1
					Dev2	Dev2
					Dev2	Dev1
					Dev2	Rep
					Dev3(liq)	

The general 'Fixed' quality of the A motive-form serves as a reference point, enabling the beginning of each variation to be clearly signposted. This is further reinforced by the restatements occurring as the same pitch collection in all cases except the coda. The B motive-form comes to fruition in the coda, where, at the climactic point of bars 58ff., the entire four-bar B theme from the first movement is developed, having moments before been surreptitiously re-introduced by the vln 2 (bars 50 - 51), and

vln 1 (bars 54 - 55).

A fifth motive-form, additional to the above, is formed at the entry of the singer in bar 14. A conflation of A and B, it is labelled AB. Its appearance in the work creates a new - but contained - motive-form, whose integration is consolidated by the cello entry in bar 29, and the several entries in the coda (bar 50ff.), where it appears with the beginning of each of the three poetic stanzas that remain (see bar 50 viola & cello, bar 54 vln 2 and viola, bar 59 vln 1 and vln 2). Its status is gradually returned to melodic prominence in tandem with its progression from Developed to Repetition. The appearances of the AB motive-forms are always of the same pitch collection outlining the E<sup>b</sup> minor triad (as does the A motive-form). In the coda, the AB motive-form supercedes the function of the A motive-form, as the Fixed: Class 2 progression of the A motive-form discards its referential pitch collection. This is further corroborated by the several repetitions of the AB motive-form in what Dale calls the 'Postlude': the conclusion to the coda.<sup>22</sup>

#### 4.2.2.4 Op.10/4

In the fourth movement, *Entrückung*, Schoenberg further develops three motive-forms, B, C, and D1. Their order of appearance in the third movement B, D1, C, is reversed for the fourth. The opening of the movement is a series of pitch patterns stemming from the Class 3 Development of C at bars 47 - 48 (vln 1) in the slow movement (see example 4.2.43). Each group of eight notes can be divided into two patterns, each of which begins with a third (alternating major and minor) and ends with a semitone. The entries of the motive-form (labelled C2) rise each time by a fifth, until the pattern is broken by the vln 2 repetition

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<sup>22</sup> C. Dale, loc. cit.

of the fourth entry. The D-C# dyad common to both the second and fourth entries of the motive-form spawns a repetitive pattern of motive-forms a tone apart. Beneath this, in bar 3, a series of descending fifths in both the viola and cello occurs. The initial note f' in the viola corresponds to the initial note f of the last entry of the C2 motive-form. In a similar manner, the initial cello note e♭' corresponds to the second entry (D#, viola) of the motive-form. Their entries therefore also correspond to the two violin pitch patterns providing the ostinato above them (Ex. 4.2.44).

Ex. 4.2.44 (Op.10/4)

Entry notes (circled)

The musical score consists of two staves. The top staff is in bass clef and the bottom staff is in treble clef. Both staves contain a series of notes, some of which are circled. The first circled note on the top staff is a D# (F#) and the first circled note on the bottom staff is an E♭ (D#). The text 'forms continuation' appears twice, pointing to the second and fourth circled notes on the top staff. The text 'bar 3 (cello)' and 'bar 3 (viola)' are written below the bottom staff, pointing to the first and second circled notes respectively.

The descent of the fifths culminates in a pitch collection at the end of bar 3, derived directly from C by retrograde inversion ( C(2) ), resulting in a Developed: Class 3 motive-form. The intervals of C are the basis for the motive-form at bar 10, a Transformation of the motive, labelled C3. In bar 16, the C(2) motive-form is gradually developed into the C2 motive from the beginning (bar 19) and then liquidated to the rising 7th in bar 20.

At the entry of the voice in bar 21, the D1 motive-form is the source for the melodic line which is essentially a Repetition of the motive-form (Ex. 4.2.45).



Ex. 4.2.45 (Op.10/4)



Motive B punctuates the vocal phrase in bar 26. In bar 27, the vln 1 repeats in rhythmic diminution the phrase that accompanied the initial voice entry (Ex.4.2.46).

Ex. 4.2.46 (Op.10/4)



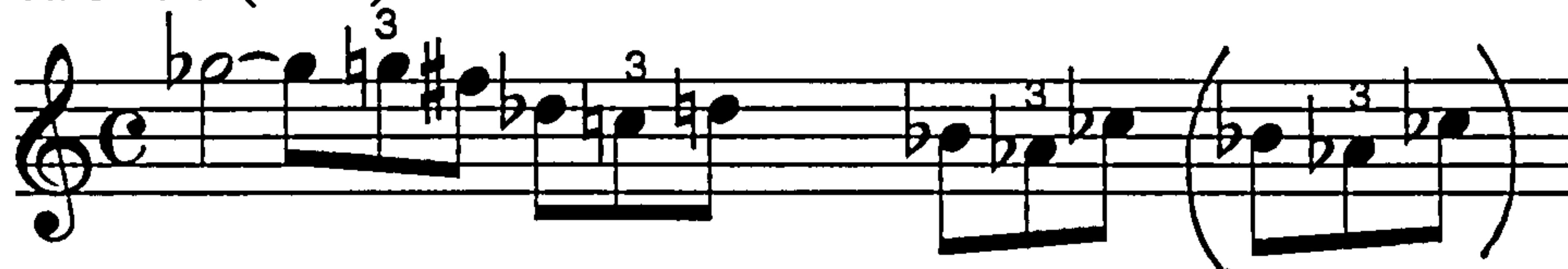
The sequential repetition of this passage in bar 28 creates a contour that invites comparison with the motive-forms in bar 5 (Ex. 4.2.47) and links the violin melody at bar 21 to the opening C2 motive-form as a Developed: Class 3 motive-form (C2(1)). The second vocal entry (in bar 31) begins to develop the foregoing motive-forms. The rising motive-form D1 in the bass-line of bar 29 is inverted in the soprano line on the words "Mir blassen".

Ex. 4.2.47 (Op.10/4)

bar 5 (vln 1)



bars 28-9 (vln 1)



In the ensuing bars of the vocal line motive-forms of B (and A) are interwoven around the motivic intervals 'x' and 'y' with interjections of motive-forms D1 and B from the instrumental parts (Ex. 4.2.48).

Ex. 4.2.48 (Op.10/4)

bars 31-35 (soprano)

bar 29 (cello)



In bar 39 the vln 2 repetition of the opening C2 motive-form both imitates the vocal line in bar 38, and is imitated by it in bar 39. The rising 7th B-a#, followed by a semitone descent to a, in the vocal line of bar 38 is repeated in the following bar with an additional note (f) which links it closely with the vln 2 entry. This is further developed in bar 40, where a fifth note is added and the intervals expanded, reflecting the motivic intervals 'y' and 'x'. In all three bars (bb.38, 39, and 40) the descending semitone motive remains unchanged, intervallically, metrically, and rhythmically which promotes its status and flags its later importance as the progenitor of the final new thematic construct of the movement, which occurs in bars 51 - 52. The motive-form is derived from the semitone dyads of C1 (Ex. 4.2.49), preserving contour and boundary, but altering

rhythm and internal intervals due to the omission of notes, thus rendering it a Developed: Class 2 progression.

Ex. 4.2.49 (Op.10/4)

C2: upbeat to bar 1 (cello)

bar 38 (soprano) "kaum mehr ken - ne"

bars 51-3 (soprano) "Ich lö - se mich"

The appearance of this new theme (C2(2)), at the specific pitch level of the motive-form in bar 38 that foreshadows it, further reinforces its relationship with the C2 motive-form. The bars following the new motive-form develop the semitone dyads within an harmonically more stable environment, largely due to the two pedal points (in bars 59-60 and 62-65) which reflect the conflicting key areas of D and F# that structure the movement (further discussion of this conflict can be found in Chapter 5, pp.211-213). The stretto entries of the C2(2) theme in the cello, viola and vln 1 from bars 65 - 73 are accompanied by restatements of the C(2) oscillating major third, first heard in bar 3 (viola). The interlocking of the C2(2) "Ich löse mich" motive-form with these restatements once again affirms the relationship of C2(2) to the opening. More importantly, however, it heralds a large-scale *developing variation* - beginning at bar 74 and ending at bar 134 - of the motive-forms introduced in the first 65 bars of the movement, re-presented in the same order, as example 4.2.50 demonstrates.



Ex. 4.2.50 (Op.10/4)

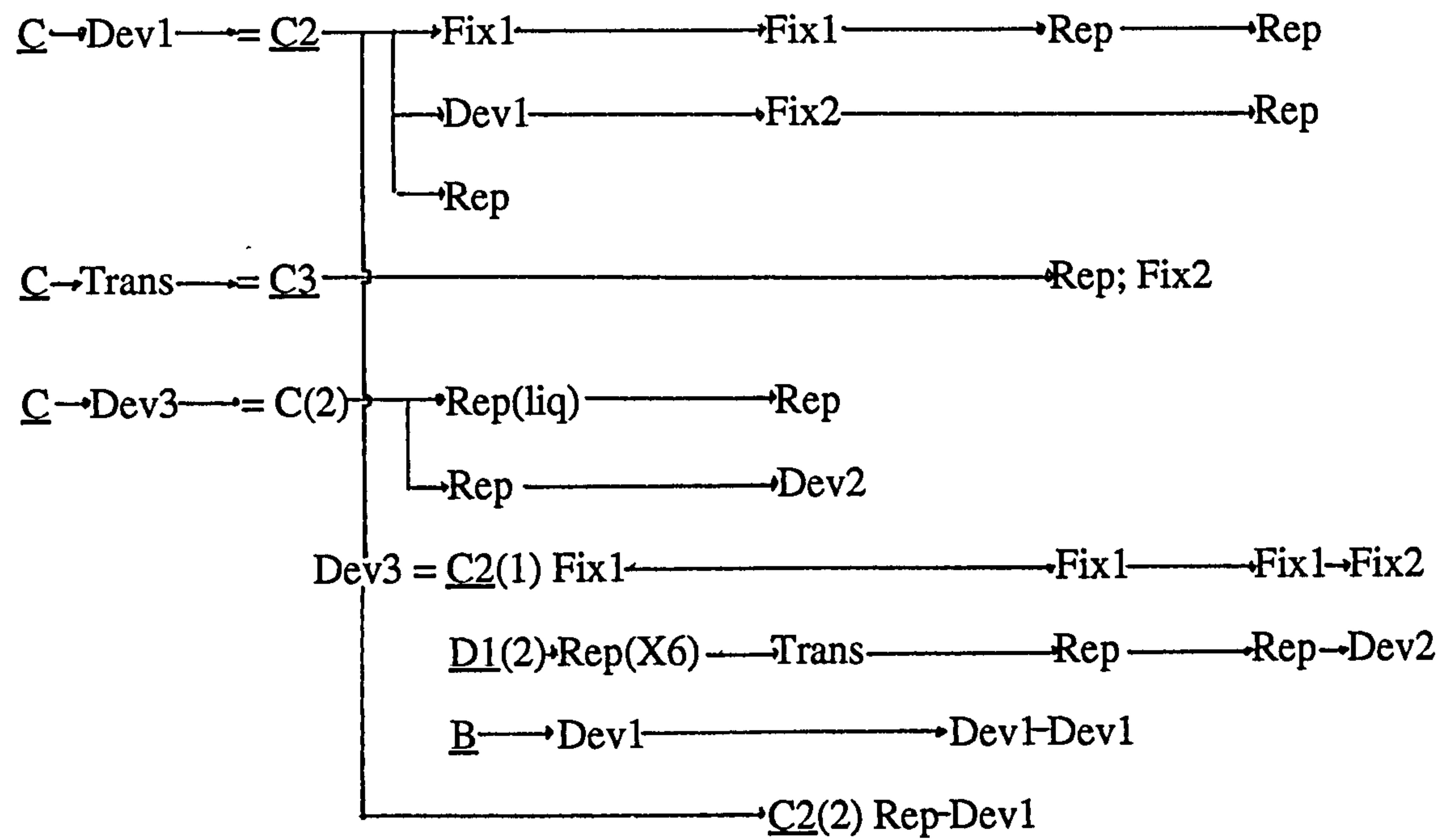
The musical score for Ex. 4.2.50 (Op.10/4) is presented in three systems. The first system contains staves for bar 1 (cello), bar 3 (vla), bar 10 (vln & cello), bar 21 (vln 1), bar 21 (soprano), and bar 27 (vln 1). The second system contains staves for bar 74 (cello), bar 80 (cello), bar 83 (vlns 1&2), bar 88 (vln 1), bar 89 (cello), and bar 91 (vln 1). The third system contains staves for bar 49 (vln 2 & vla), bar 50 (soprano), bar 21 (vln 1), bar 60 (vln 1), bar 65 (vln 1 & cello), bars 97 - 99 (vln 2), bar 100 (vlns 1&2), bar 110 (vln 1), bar 120 (vln 1), and bar 133 (vln 1 & cello). The score includes various musical notations such as treble and bass clefs, key signatures, time signatures, and dynamic markings.

The 'parallel' *developing variation*<sup>23</sup> here is interrupted only by the climactic entry of the D1 and C2(1) motive-forms (from bar 21) in bars 110 -120, and is resumed at bar 120 (a *developing variation* of bars 60 - 65) until bar 134, where further statements of the the D1 and C2(1) motive-forms are interwoven with residues of the C2(2) ("Ich löse mich") motive-form ending the work. The motivic progressions appear overleaf.

<sup>23</sup> The 'parallel' technique here challenges traditional formal interpretations and expectations of a final movement, being neither a rondo (as in the case of the Op.7 Quartet) nor a sonata-rondo (nor even sonata-allegro) since the large-scale *developing variation* of the entire musical material immediately following its initial statement cannot be interpreted in the traditional sense as a 'recapitulation'. Furthermore, Schoenberg employs the same technique in the final movements of both Opp.30 and 37. This interpretation of Op.10/4 is at variance with those of Frisch and Stein, who mark bb.67 - 99 as development and bars 100 - 119 as a simultaneous Reprise of the two vocal themes "Ich fühle Luft" and "Ich löse mich in Tönen".

# Motivic Progressions Op.10/4

Bars	1- 15	16 - 51	52 - 82	82 - 99	100 - End
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## 4.2.3 Op.30 Quartet

### 4.2.3.1 Op.30/1

The opening twelve bars of the work was shown (in Chapter 2) to comprise essentially two *Urmotive*, A and B. B was divided into two two-bar motivic cells, Ba and Bb, which were developed immediately into two more two-bar cells Bb1 and Ba1. Both *Urmotive* were shown to be constructed from the same intervals, though their order was different. Since *Urmotiv* B is the *Hauptstimme*, or principal melodic line at the beginning, it will be dealt with first.

The initial development of B is, in fact, a superimposition of its rhythmic cells onto the pitch collection of A in the cello, bars 13ff. The resultant motiveform, in terms of B is Fixed: Class 2, retaining rhythmic and contour elements. In terms of A, it is Developed: Class 1 since its rhythmic element has been discarded. Schoenberg does the opposite in bar 19 (vln 1), where the A rhythm (save for the initial quaver) is superimposed onto the B pitch collection, creating the opposing categorisation. The discussion of motive selection and progression in Chapter 3 established the superiority of the Contour and Rhythmic elements over those of Internal and Boundary intervals. This quality pre-determines that where one of the two superior elements (Contour or Rhythm) is unchanged, it is the other that identifies derivation, above and before intervallic considerations. Thus the correct interpretation, using these criteria, would classify bars 13ff. as a Class 1 Development of B and bars 19ff. as a similar development of A. The B(1) motive-form is repeated until bar 33 where its final interval is further repeated, liquidating it. From bar 43 - 61 the presentation of the three initial intervals of *Urmotiv* B is made: each interval is repeated; then, once the sequence is



complete it is retrograded (Ex. 4.2.51).

Ex. 4.2.51 (Op.30/1)

bar 5 (vln 1)

bars 43-61 (vln 1)

The majority of the presentations preserve contour as well as interval, and since they are separated into motivic cells due to the rhythmic repetitions, interval and boundary become synonymous. The cello line during these bars presents repetitions of the two intervallic dyads of the *Nebenstimme*.

At bar 62, B(1) is developed. The initial statement is a retrograde of bar 18 (and preceding); boundary and rhythm are altered resulting in a Developed: Class 2 motive-form. This is then repeated in the ensuing bars, first as a Fixed: Class 2, then Developed: Class 1 motive-form. From bar 76 a series of descending dyads occurs, separated from each other by a further pattern of the initial three intervals of *Urmotiv B* (Ex. 4.2.52).

Ex. 4.2.52 (Op.30/1)

bars 76-94  
(vln 1)

The pattern is completed at bar 85 and retrograded therefrom presenting each time a twelve-note aggregate. Divided into four-note groups by virtue of the rhythmic patterning, the contour of B is retained, all other elements developing and resulting in Developed: Class 3 motive-forms. From bar 103 onwards the Ba semitone dyad is passed from voice to voice amid A motive-form developments. At bar 123 (viola) the dyad doubles back on itself forming a three note group, associating in all elements with its occurrence at 43. From 133 (cello) the dyad is developed by combining with the B *Urmotiv* intervals and Bb rhythm. More repetitions of the dyad occur until 144 where the cello inverts the Bb1 motive-form for the first time. At 150 a series of dotted minim dyads of increasing intervallic sizes are presented, moving systematically from bass to treble. The intervals are all compounds of the B *Urmotiv* intervals. At 164 Bb1 is once again repeated in inversion.

At bar 174 the melody from bar 62 reappears (the recapitulation of the second subject) with altered contour, creating a Fixed: Class 1 progression. Bars 188 - 206 are also a Fixed: Class 1 progression from the corresponding earlier bars (76ff.). At bar 207 the Ba motive is combined with the A motive-form. The interval is duplicated to form stepwise movement of two semitones. At bar 232, the B *Urmotiv* intervals are presented in even rhythm and altered contour, marking a transformation. Bar 235 takes the g#' - a' dyad from 232 and heralds a repeat of the B *Urmotiv*. The dyad represents Ba, though not at the same pitch as in the beginning. Bars 239 - 242 present the rhythm of Bb imposed on the retrograde pitches of Bb1, followed by the rhythm of Bb1 imposed on the retrograde pitches of Bb. Since Bb1 is a transposed retrograde inversion of Bb, what this effectively creates is simply a transposed inversion of the original motive-forms. Bars 245ff. are clearly an inversion of bars 13ff. .

The semitone dyad once again prevails until the caesura at bar 277. Following this, the cello announces the coda theme built from semitone and tritone intervals, a transformation of the Bb motive. The repetition of B from 239 is developed in bars 297ff. as a series of alternate tritone and fourth intervals. At bar 309 the semitone interval is added and the intervals are later multiplied. Finally, the dyad multiple developed in bar 212 is superimposed onto the Bb rhythm.

The profile of both rhythm and contour of *Urmotiv* A is distinctive and well-established by the entry of the B *Urmotiv*. In the main, *Urmotiv* A's developments are intervallic, but by bar 22 the original contour of - + - -, has become - + - +. This initial contour alteration occurs against the preservation of all the other elements. The characteristic rhythmic profile is capable of sustaining additional quavers as well as reduction and omission, while maintaining its character. In bar 19, the first rhythmic 'development' takes place. In this form the initial pitch is repeated as well as the others. Due to the well-established rhythm and contour of the original motive, the repeat of the initial pitch here is heard as an upbeat to the motive itself. This dislocation of rhythm is not, in fact a rhythmic development of the motive form, since the rhythm of the *Urmotiv* is unaltered. Rather it is an extension of the rhythmic motivic idea, whose purpose is to lengthen the overall duration of the motive-form. The first significant rhythmic alteration comes in bars 51 - 52. The final note of the eight quaver figure is lengthened to a dotted crotchet, which effects a rhythmic grouping of 4 + 3 + 3 (in quavers) with the stress falling on the first of each group. This duration and rhythmic alteration from four crotchet beats to five concurs with the rhythmic diminution of the B motive-form dyad from the crotchet duration of 3 + 4 to 2 + 3. By the end of bar 53, the new rhythmic development is sufficiently well



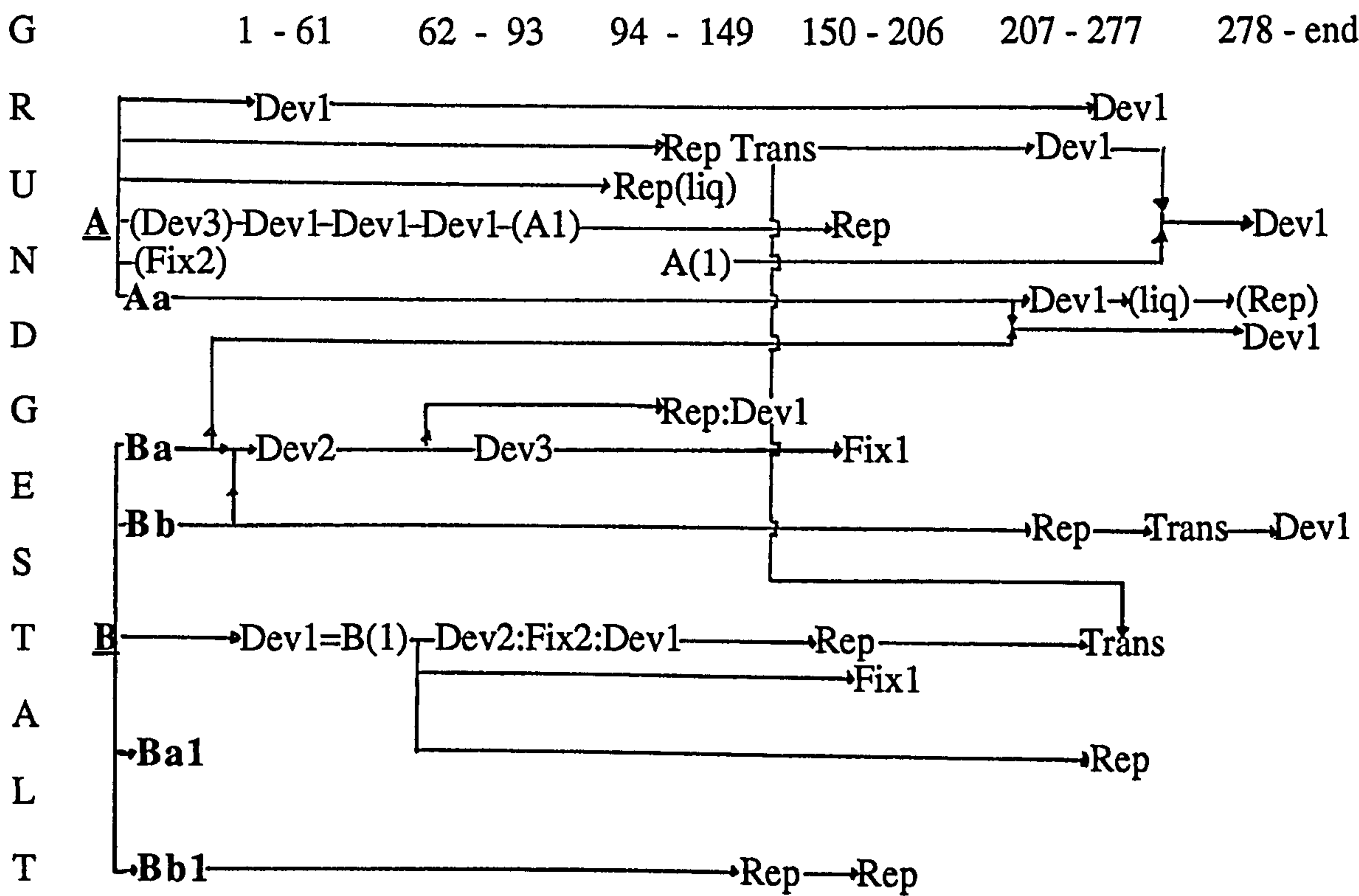
established to allow changes to the contour. Thus development to this motive-form occurs in a concentrated fashion across a short space of time.

In bars 62 - 63 the five-beat duration prevails, though the rhythmic stress has returned to a regular pattern of quavers. The contour development from bar 22 is re-instituted here. This section also associates with the motive-form at bar 37, which not only has the same contour, but also the same articulation, slurring the quavers in pairs. In bar 94, the bar before the *Tempo 1*, the original articulation reinstates the *Urmotiv*, and from this point on it is gradually reduced in duration from four beats in bar 94, to three in bars 95 - 99, and two in bars 99 - 102. This has the effect of reducing the intervallic succession, thereby liquidating the *Urmotiv* to a single interval, the semitone A(1). In bar 107 and 108 the motive-forms are layered upon one another and in bar 109 the motive-form is harmonised by other intervals of the *Urmotiv*. From bar 116 onward the return to the *Urmotiv* begins, and by 130 it is re-established (cello). In bar 134 the *Urmotiv* is transformed as contour and rhythm are altered in the vln 2. In the same bar the vln 1 fragments the *Urmotiv*. The immediate repetitions of this motive-form Aa(1) in bars 138ff. again diminish the size of the *Urmotiv* creating a three-beat duration. In bar 154 the Aa(1) is extended into a nine-quaver three-pitch motive-form against occurrences of the *Urmotiv*. At 163 this new rhythmic pattern dominates the metric stress. This is eventually liquidated to single-pitch three-quaver durations, which overlap causing a dissolution of the regular metre. This leads into 174 (the recapitulation of the second subject), where the motive-form from bar 62 is reinstalled. A similar fragmentation of the motive-form occurs as did before until bar 207 where, instead of the return of the *Urmotiv*, a new motivic combination occurs. The initial four-quaver fragment of the *Urmotiv* becomes the second half of a merging of Ba and A motive-forms.

A long series of overlappings culminates in a climactic point at 228 - 230 where the motive-forms are rhythmically developed. At the *Tempo 1* in bar 231 the *Urmotiv* is restated with slight rhythmic change.

Many 'Fixed' repetitions occur until bar 249 where the initial contour development recurs (albeit briefly). In bar 278 the *Urmotiv* is divided into two three-quaver groups by the omission of the first and fourth quavers of the motive. By bar 296, these have been liquidated to semitone dyads, and are then combined with a syncopated version derived from the tying of the repeated notes. These, together with repetitions of the *Urmotiv* are liquidated to bar 306. In bars 311 - 312 the semitone dyad and the *Urmotiv* are rhythmically developed into triplet formations (a radical effect in context), before the return of the motivic rhythm (developed in bar 207ff.) in bar 320 heralds the end of the movement. The progressions are summarised below:

Motivic Progressions Op.30/1



#### 4.2.3.2 Op.30/2

The second movement of the Op.30 Quartet has been acknowledged by many writers as a set of (double) variations. In particular, Peter Odegard's analysis affirms this supposition and his perceptions are an invaluable contribution to the present analysis.<sup>24</sup>

Odegard demonstrates the existence of four thematic constructs which he duly labels A, B, C, and D. A and B represent the two 'themes' of the double variations; C represents the countermelody to A which begins in bar 2; D represents a new melody which first appears in the first part of variation two (bar 44; Ex. 4.2.53).

Ex. 4.2.53 (Op.30/2)

The musical score for Ex. 4.2.53 (Op.30/2) is presented for three instruments: Violin 1 (vln 1), Violin 2 (vln 2), and Viola. The time signature is 2/4. The key signature has one sharp (F#). The score is divided into three measures. The first measure shows the beginning of the piece, with a box labeled '1' above the first note of the Violin 1 staff. The second measure shows the continuation of the themes, with a box labeled 'A' above the first note of the Violin 1 staff. The third measure shows the continuation of the themes, with a box labeled '[B] C' above the first note of the Viola staff. The Violin 1 staff has a treble clef, and the Viola staff has a bass clef. The Violin 2 staff has a treble clef. The score is written in a standard musical notation style, with notes, rests, and accidentals clearly visible.

Odegard breaks the A and B themes into phrases, labelling the two A phrases as A and A', and the B phrases a, b, and a'. His Table Three is reproduced on p.159, outlining the appearances of the four constructs.

For convenience, my analysis of the motivic progressions employs Odegard's thematic nomenclature, despite evidence to show that his B theme, within the criteria of this study, is a Class 3 Development (or possibly a Fixed: Class 2 variation) of the counterpoint to A, labelled C.

<sup>24</sup> See E. Stein, *Analytical Notes in the Philharmonia Score of Schoenberg's Third Quartet Op.30*; N. Dietrich, 'Arnold Schoenbergs Drittes Streichquartett', in *Beiträge zur Musikforschung*, Band 12 (Munich 1983); E. Haimo, *Schoenberg's Serial Odyssey*; P. Odegard, 'Schoenberg's Variations: an Addendum', *Music Review* (1966), pp.103ff.



# Odegard Table 3

<i>Section Theme</i>		<i>Materials</i>	<i>Measures</i>	<i>No. of Measures</i>		
A:	part 1	A + C	1-3	10		
		Transition 1 (C)	4-5			
	part 2	A' + C'	6-9			
		Transition 1 (C')	10			
B:	part 1	a	11-13	10		
	parts 2&3	b + a'	14-20			
Variation I A:	part 1	A + C	21-23	11		
		Transition 1 varied	24-(25)			
	part 2	A' + C'	25-28			
		Transition 1 varied	29-31			
B:	part 1	a (inverted in 'cello)	32-34	9		
	parts 2&3	b+a (inverted in 'cello)	34-40			
Variation II						
A:	part 1	A + C (A=accompaniment in Vn. II; C=Vn.I+Va; whole passage has introductory func)	41-43	9.5		
		D ('cello)	44-46			
	part 2	D' (Vn.I)	46-48			
		A' ('cello and Va.)	49-50			
B:	part 1	Transition 3	50-53	10.5		
	part 2	a+b (fragmented)	53-56			
	part 3	Transition 3	56-59			
		Extension (b material, Vn. 1 + 'cello)	59-60			
Variation III A:	part 1	A (including C material)	(60)-65	10		
	part 2	A' (including C material)	(65)-70			
	B:	part 1	a (+some b, m. 74)		71-74	14
		part 2	b (developed)		75-77	
		D (quoted and developed)	75-79			
part 3		Extension (recalling transition 3)	79-80			
		Transition 4 (based on a rhythmic diminution of A)	80-84			
Coda: Introduction based on A						
B:	part 1	a	85-86	13		
			87-90			
	parts 2&3	b (extended, motivated and developed)	90-97			
A:	part 1	A'	98-103	13		
		Transition 1	103-104			
	part 2	A (evolving similar materials in repetition leading to final cadence)				
			105-110			

My labelling for the three thematic constructs would yield A, B1 and B, therefore, in place of Odegard's A, B, and C, in order to demonstrate the inherent relationship between the counterpoint and the second theme. This alternative labelling is also both chronological and relational, whereas Odegard's is hierarchical, in the sense that labelling the counterpoint last subordinates it. Nevertheless, Odegard's labelling will be used, in order that reference to his table and comparison with the motivic progressions table will be most effective.

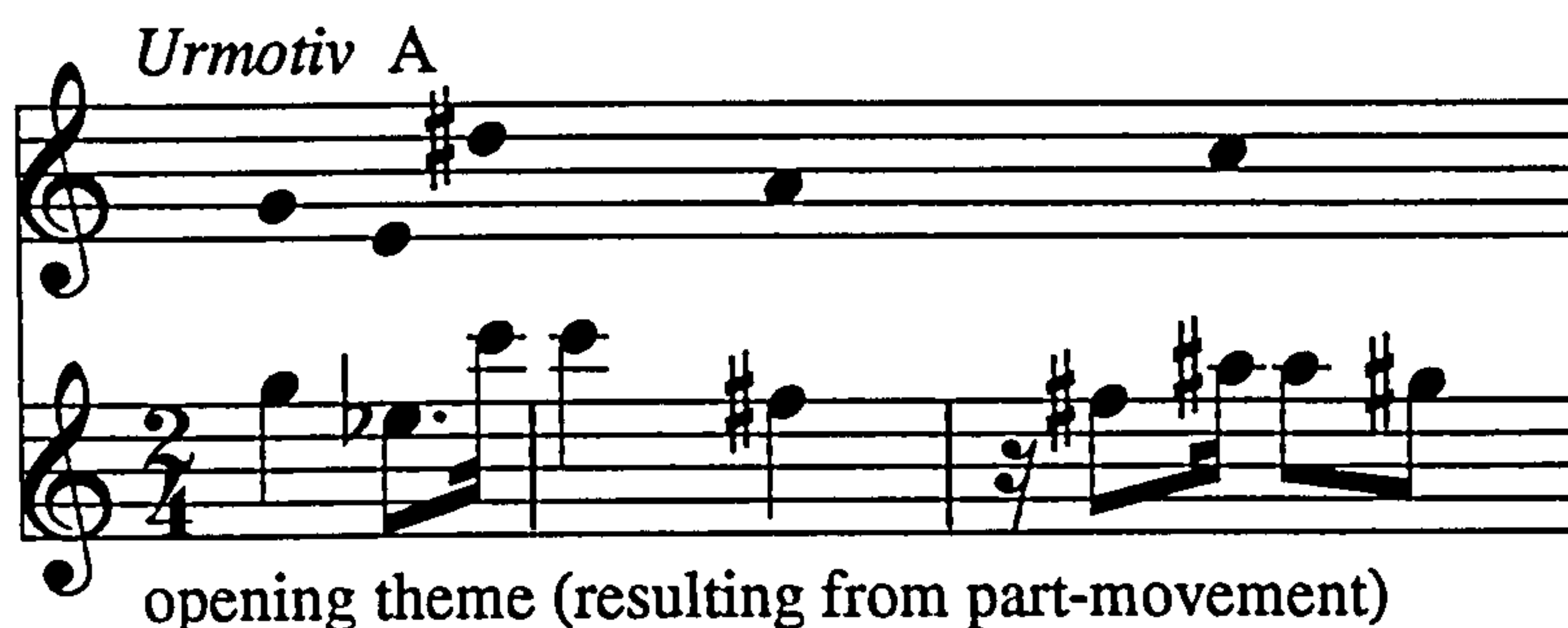
The opening theme is, in one sense, unique. Schoenberg partitions the twelve-note row between the two violins thus:

vln 1:	0	3	4	7	8	10
vln 2:	1	2	5	6	9	11
interval class:	[3]	[6]	[5]	[5]	[3]	[6]

Each dyad between the two instruments (and therefore consecutively in the row) produces one of three intervals, the minor third, tritone and perfect fourth represented here by the interval class numbers 3, 6, and 5, and shown in brackets below each pair. Theme A and all its developments are, without exception, presented as a two-part counterpoint yielding the above intervallic succession. A', the second phrase of theme A, presents the interval succession in retrograde. The harmonic ramifications of this conception will be dealt with in chapter 5.

The part crossing of the two lines creates a melody which is a Class 3 Development of *Urmotiv* A from the first movement (Ex. 4.2.54).

Ex. 4.2.54 (Op.30/2)



This melodic contour will be designated Theme A. There are six more appearances of the theme, in bars 21, 41, 49, 61, 85 and 98, five of which correspond to the beginnings of formal sections.

Odegard has shown that theme B (bar 11 - 20) is rhythmically related to the counterpoint, C, (Ex. 4.2.55).

Ex. 4.2.55 (Op.30/2)

vln 1  
A  
vln 2  
viola  
[B] C  
[B1] B  
vln 1 bars 11-14  
Ex. 4.2.56 (Op.30/2)  
cello bars 44-6

Whilst the rhythmic relationship is not entirely exact, it does appear invitingly similar. Schoenberg preserves the contour here, in order that the minor rhythmic changes do not result in a motive that is too distantly related to the opening of the movement. If the minor rhythmic changes are accepted as preserving the rhythmic element of the C motive, then the



derived motive-form (B) is a Fixed: Class 2 variation of the counterpoint. If one does not, it demonstrates contour similarity only, and is a Developed: Class 3 construct. The appearances of theme B in the variations that follow are alternately Developed: Class 1 and Repetition of the original. The rhythmic preservation of theme A and relatively little development of theme B ensure the clarity of formal divisions, both visually and aurally.

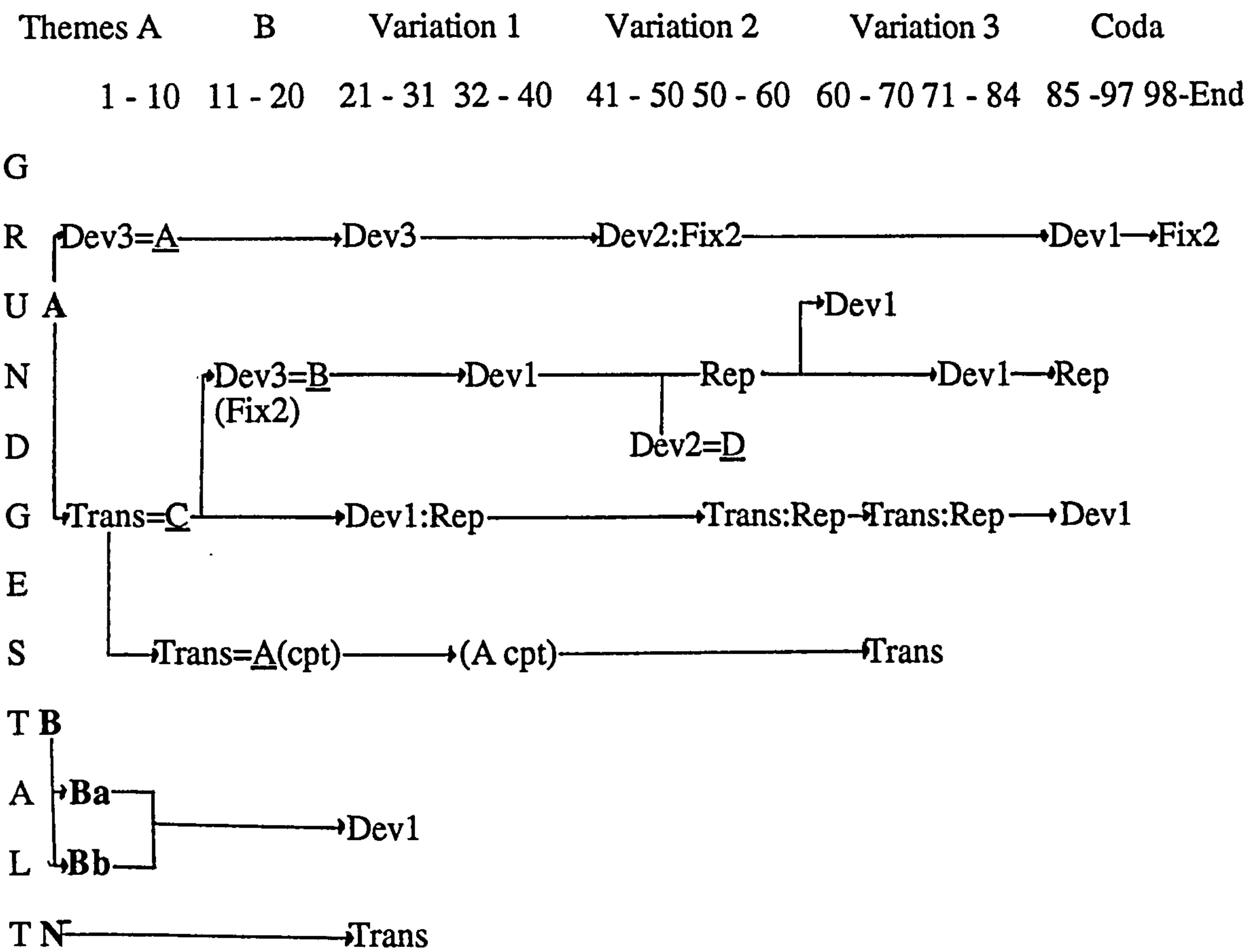
Theme D, which first appears in the cello in bar 44, is a further development of theme B. This Class 2 Development retains the contour and repeated notes of B, as well as the boundary interval, and contracts the duration span from four bars back to three, the original duration span of the counterpoint theme, (C) (Ex. 4.2.56, with Ex. 4.2.55). The theme occurs three times in all: its initial statement in bar 44; a Developed: Class 2 variation in bar 46 (vln 1); and in bar 75 (vln 1), where it is a Repetition of bar 44, followed by another Developed: Class 2 variation before it is liquidated.

The 'variation' in this movement is created not by developing the two 'themes', A and B, since they undergo little in the way of motivic progression. Nor is it the development of theme D. The bulk of material that is developed and varied is the subordinate material, theme C, and a further version of theme A.

Theme C has already been shown to spawn themes B and D. Its additional function as a counterpoint to theme A is sustained throughout the movement. Theme A is also developed as a counterpoint to the appearances of theme B. In this sense, theme A is heard continuously throughout the entire movement. Theme A matures at bar 11 where the two voices presenting it are the vln 2 and cello. It is this motivic variation

of theme A that is employed as the counterpoint to theme B and developed throughout the work. The motivic progressions are summarised below.

### Motivic Progressions Op.30/2



### 4.2.3.3 Op.30/3

The third movement, entitled *Intermezzo*, is a ternary form movement reminiscent of the Minuet/Scherzo and Trio archetype. The three sections are clearly delimited by the appearance of the principal motive, A, at both beginning and end of the two outer sections (bar 1 - 68, 69 - 127 and 128 - 183).

The '*Scherzo*' section comprises three thematic constructs, A, B and C, each of which develops from the *Grundgestalt Urmotive*. Theme A is

constructed from a Transformation of *Urmotiv* A overlapped with the *Nebenstimme* motive, followed by a Developed: Class 1 variation of the B *Urmotiv*. Example 4.2.57 demonstrates the rhythmic repetitions and developments that both delimit the *Urmotive*, and integrate further motivic developments with the first six bars.

Ex. 4.2.57 (Op.30/3)

Urmotiv A

Contours

A

I

R

RI

- + - -

+ - + +

+ + - +

- - + -

Urmotiv A

N'stimme

motive-form B

bars 1-6

(viola)

Contours

- - + (-) + - - + - - + - + + + - + (-) - -

rhythm

a

b

a1

b1

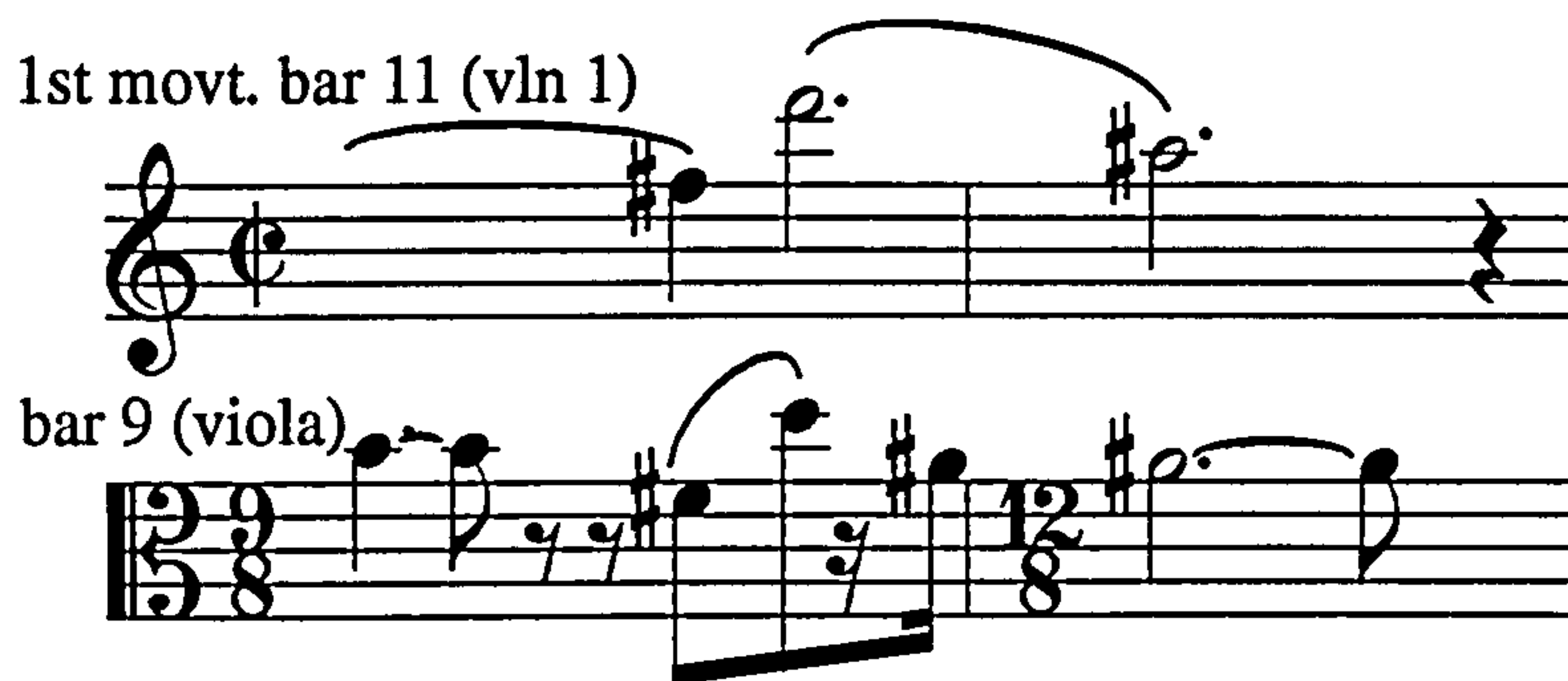
a1

b

In bar 7 the intervals of Aa are interverted. The contour of the original Aa is narrowed as the a and b rhythmic cells are spliced together. Here, also, the rhythm of the b cell is further developed. The new dotted rhythmic motive is the basis for further developments of the Aa(1) as the contour is inverted in bar 8. In bar 9 the Ba1 intervals of the *Grundgestalt* B *Urmotiv* are imposed onto the rhythmic framework, predicting their future importance (Ex. 4.2.58). In bar 16 the Aa motive is further developed rhythmically, which sets up the rhythmic framework for the next thematic construct, B, at bar 19.



Ex. 4.2.58 (Op.30/3)



*Urmotiv* B is the source for the B theme of the '*Scherzo*'. (Ex. 4.2.59). When all the motivic intervals of Ba and Bb from the *Urmotiv* have been developed, the next thematic construct of the '*Scherzo*' is stated. It, too, derives from *Urmotiv* B in the *Grundgestalt* (Ex. 4.2.59).

Ex. 4.2.59 (Op.30/1)



The new rhythmic division of the bar stems from the accompaniment to theme B in the cello, whose nine quavers are given that rhythmic emphasis by change of pitch (Schoenberg's articulation marks in the score reinforce the importance of the rhythm being dictated by the pitch change). The rhythmic division of the bar into 2 + 3 + 4 quavers remains the basis and identity of the C theme, as the intervals and contour are developed in the ensuing bars (forming motive-form C(1) ). The return of the A theme at

bar 39 heralds a repeat of the three thematic constructs. The first six bars of A are heard, followed by four bars of B, during which A continues in the cello. In bar 49 C reappears, leading to the closing of the section given by the second main phrase of A in bars 56ff. . This is liquidated by bar 64, at which point the semitone dyad of *Urmotiv* B (vln 2), which had not occurred with the repetition of theme B in bars 45 - 48, institutes a transition to the '*Trio*' .

The first thematic construct of the '*Trio*', labelled theme D, is a transformation of *Urmotiv* B. The Ba semitone dyad is interposed between the pitches of the Bb motive. Next, the dyad is linked to the tritone, and finally to the minor third exhausting the potential of the *Urmotiv* intervals (Ex. 4.2.60).

Ex. 4.2.60 (Op.30/3) Theme D (vln 1, bar 69)

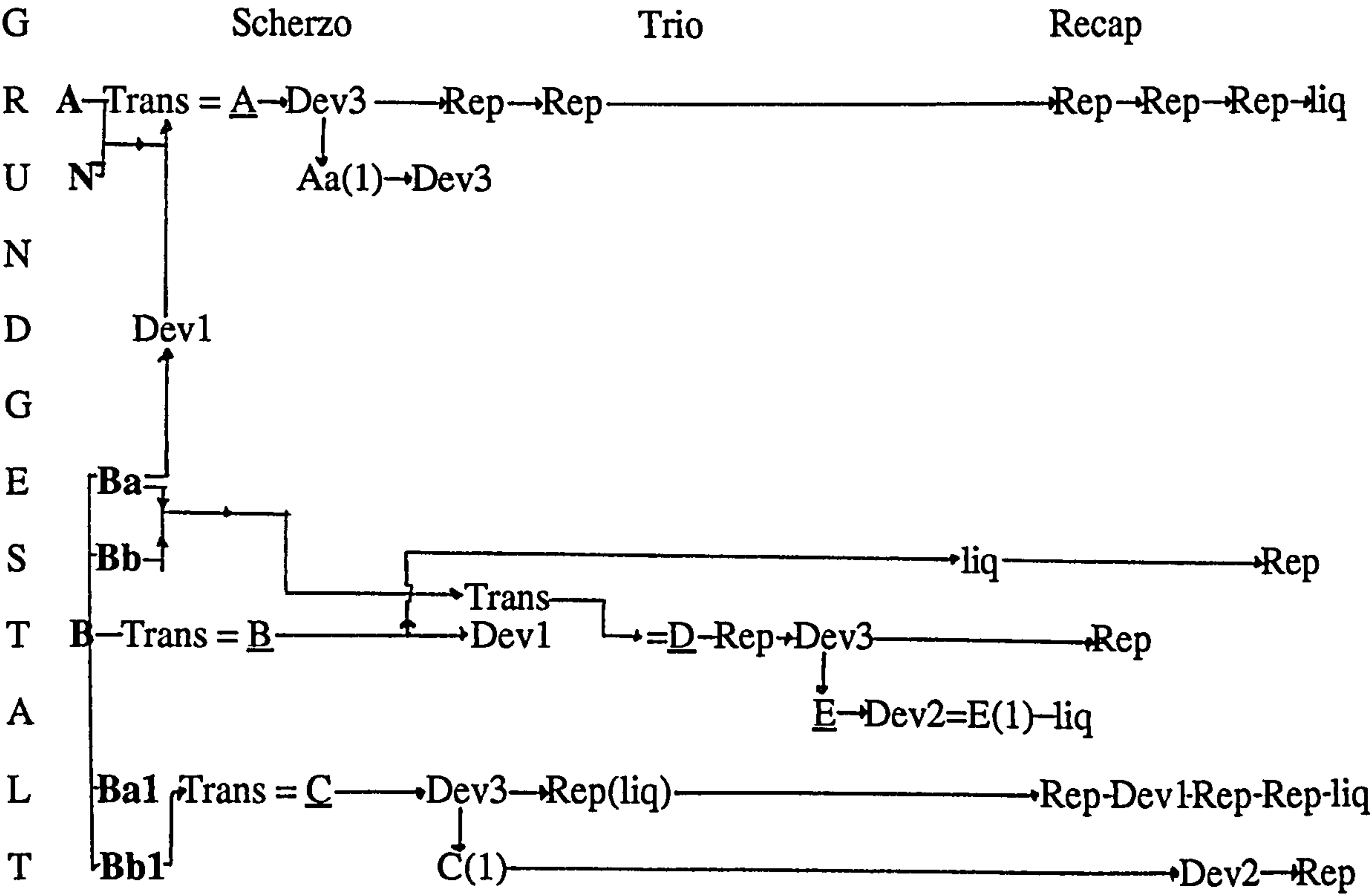
The image displays musical notation for two examples. The top example, Ex. 4.2.60, is a single staff in treble clef, labeled 'Theme D (vln 1, bar 69)'. It contains a melodic line with various intervals and fingerings indicated by numbers 1, 3, 5, 6, and 5. Above the staff, labels 'Da', 'Db', and 'Dc' are placed over specific notes. The bottom example, Ex. 4.2.61, consists of two staves in bass clef, labeled 'Theme E (vln 1, bar 88)'. The first staff shows a melodic line with a label '(vln, bar 88)' above it. The second staff shows a similar melodic line with a label '(vln, bar 92)' above it.

The middle of the three motive-forms (Db) develops the continuation of the phrase to bar 75, where the third motive-form leads to the end of the section. A new thematic construct is established in bar 88. Theme E (viola) is developed out of theme D, whereby the contour of Db and Dc are rhythmically and intervallically altered, creating a Developed: Class 3 progression (Ex. 4.2.61, with Ex. 4.2.60). At bar 92 the motive-form is embellished producing a Developed: Class 2 progression (Ex. 4.2.61). The

E(1) motive-form Boundary Interval is broadened to a major third in the vln 1 and the motive-form is gradually liquidated. Bar 97 reintroduces the Db motive, which is overlapped and repeated and also liquidated. In bar 107 the D theme returns. Motive Da is extended by repetition to bar 117 where Db and Dc are developed. Bar 124 liquidates the section by interlocking Db motives in even rhythm. Theme A is quoted as a 'retrogression' before the *Tempo 1* at bar 132 restores the original. In the recapitulation the theme A phrases are punctuated by theme C interjections. Theme B reappears in bar 145, followed by a repeat of bar 33, a development of theme C ( C(1) ). This is eventually liquidated, and theme A appears for several more repetitions before a final liquidation of the C theme closes the movement.

The motivic progressions are summarised below.

Motivic Progressions Op.30/3





#### 4.2.3.4 Op.30/4

The Rondo finale presents essentially six different thematic constructs each of which are derived from earlier movements or directly from the *Grundgestalt*.

The opening theme, A , is derived from the B *Urmotiv*, and modelled on the intervallic shape of the vln 2 motive, bars 1 - 2 of the second movement (Ex. 4.2.62). The example also shows the derivation of the continuation motives. In bar 9 the Aa part of the theme is reiterated as a Developed: Class 1 variation. The Ab part discards its reliance on the major thirds and as such forms a Developed: Class 3 variation.

Ex. 4.2.62 (Op.30/4)

In bar 14 a new thematic construct is heard. Theme B is also derived from the B *Urmotiv* but derives its full thematic contour and intervallic relationships from the A theme of the Intermezzo (Ex. 4.2.63).

Ex. 4.2.63 (Op.30/4)

In bar 18 a retrograde of the intervals and slight changes in the rhythm form a Developed: Class 2 variation. In bar 22 the third thematic construct, C, occurs. Example 4.2.64 demonstrates its intervallic and contour relationship with theme A. The final thematic construct (D) to appear before repetition of A occurs at bar 33. The dotted triplet figure associates this motive with the motive-form in bar 7 of the Intermezzo. The motives also share the same intervallic content and contour in retrograde inversion, creating a Developed: Class 1 motive-form. This is immediately developed in the next bar by interval expansion. In bar 41, rhythmic expansion of Aa causes a Class 1 Development of A on its return. Further expansion, by the addition of an initial note causes a lengthening of the duration of the A motive-form, by inclusion of the semiquaver anacrusis from the opening of the movement.

Ex. 4.2.64 (Op.30/4)

Theme A (bar 1ff.)

Theme C (bar 22ff.)

In bar 62 the fifth motive, E, is instituted. The contour and intervallic structure, and, to an extent, the rhythmic proportions, link this 'second subsidiary section' motive-form to the second theme of the first movement (bar 62, vln 1) (Ex. 4.2.65), creating a Developed: Class 1 variation thereof.

### Ex. 4.2.65 (Op.30/4)

(Op.30/1: vln 1, bar 62) (Op.30/4: cello, bar 14)

(Op.30/4: cello, bar 62) (Op.30/4: cello, bar 67)

The final motive (F) to be generated in this movement is a development of theme B from bar 14. Example 4.2.65 demonstrates the relationship between it and its Developed: Class 1 motive-form in bar 67. Both E and F are rhythmically developed in the ensuing bars. In bar 83, a development of E produces a motive-form directly associated with theme D from bar 44 of the slow movement (Ex. 4.2.66). The underlying connection between F and the B *Urmotiv* of the *Grundgestalt* is manifested in bar 87, where the rhythmic development of F from bar 78 is imposed on the *Urmotiv*.

### Ex. 4.2.66 (Op.30/4)

(Op.30/4)  
(vln 1, bar 83)

(Op.30/2)  
(vln 1, bar 75)

Theme A returns in bar 99, marking the point at which the 'parallel' *developing variation* of it and of the thematic constructs B, C, and D begins. In bar 151, a further variation of theme A leads to an overlaying of motive-forms from A, B, and C, developed by superimposition of rhythmic motives from B, D, and F (Ex. 4.2.67).



# Ex. 4.2.67 (Op.30/4)

(vln 2)  
Theme A : rhythm B  
(cello, bar 9)

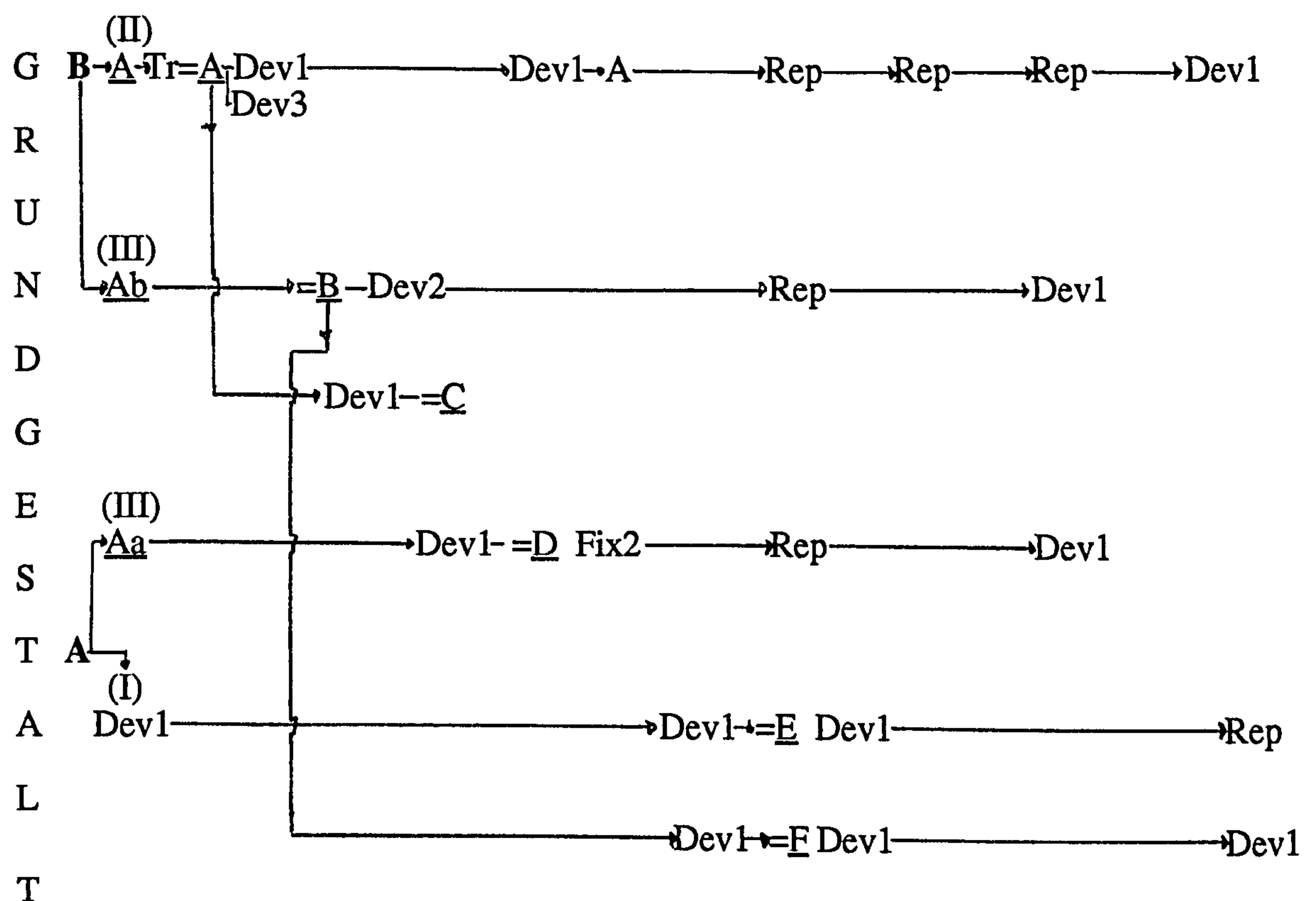
(viola)  
*Urmotive B*: rhythm D

(cello)  
Theme C: rhythm F

This breaks the 'parallel' pattern (in a similar manner to the break in pattern in the Op.10 Quartet's fourth movement, bars 110 - 119 shown in Ex. 4.2.50, p.150) until bar 186, where a rhythmic extension of A, together with developments of E and F, simultaneously completes the 'parallel' pattern and initiates the movement's coda.

## Motivic Progressions Op.30/4

Bars 1 - 13 14 - 22 22 - 32 33 - 40 41 - 59 62 - 98 99 - 150 151 - 186 186 - end



## 4.2.4 Op.37 Quartet

### 4.2.4.1 Op.37/1

In Chapter 2.5, the Quartet's *Grundgestalt* was shown to be constructed from two alternating rhythmic motives, with similarly alternating contours, imposed on successive pitch dyads (Ex. 4.2.68). The descending dyad (initially d, c#) is diminished in duration and expanded intervallically on repetition in bar 2 and is restored to its original proportions between bars 3/3 - 4/2.

Ex. 4.2.68 (Op.37/1)

**Rhythm** C a b a1 b a b1=C

**Dyad Contour** - + - + - +

**Rhythm created by Pitch Contour**

The ascending dyad was seen to expand on successive repetitions and alter its rhythmic pattern on final repetition.

Ex. 4.2.69 (Op.37/1)

**Dyad Contours**

- - + = Prime
- + + - = Inversion
- + + = Retrograde
- + - - = RI

Overlapping of successive dyads produces five tetradic contours, each

related to the first by inversion, retrograde, or repetition (Ex. 4.2.69). The combination of rhythms a and b with the two initial dyads forms the initial *Urmotiv* of the work. The subsequent overlapping tetrads of the *Grundgestalt* can be seen as developments of this *Urmotiv*.

It will be demonstrated in the following commentary that this *Urmotiv*, A, and its Developed: Class 1 motive-form produced at the beginning of the second phrase (bar 6/3, vln 2, which essentially develops its rhythmic element and inverts its contour), provide the material of the first movement. This Developed: Class 1 motive-form will be referred to as *motive-form B*. To the two initial rhythmic motives must be added a third, c, which results from the fusion of a and b, and is the basis for the development of *motive-form B* from *Urmotiv A*.

The developments of the *Urmotiv* itself are fewer than that of its derived *motive-form B*. The first of these occurs at bar 17, where the contour and boundary interval of the cello *Hauptstimme* are altered. In bar 27, the descending and ascending semitone dyads are associated with the work's opening pair and a derivation of rhythm c. The next development occurs at bar 37, where the *Hauptstimme* in the cello presents a Developed: Class 1 motive-form with a 'b' derived rhythm. Bar 78 reveals the next, Developed: Class 3 motive-form as the minims of rhythm a are diminished to semiquavers. The next derived motive-form employs a variation of rhythm b to provide a further Developed: Class 1 in bar 110 (vln 1), which is immediately developed again from bar 111 (viola), altering boundary and internal intervals. At bar 116 a Developed: Class 3 motive-form in the viola marks a new thematic construct, A4(1), a six-bar phrase which is then developed on repetition by the vln 2 in bar 122, in bar 128 by the cello,



and is finally liquidated by vln 1 from bars 134 - 139. As a thematic construct the labelling A4(1), which demonstrates motivic derivation, is replaced by the labelling theme D. The theme reappears twice: firstly, at bar 188 where it occurs in tandem with another theme (theme C); secondly, in bar 207, where it is duplicated in another voice in rhythmic unison, before being liquidated into syncopated rhythms. The final motivic development of A is in bar 153, where the viola presents a two-bar Developed: Class 1 motive-form, the rhythm being derived again from b.

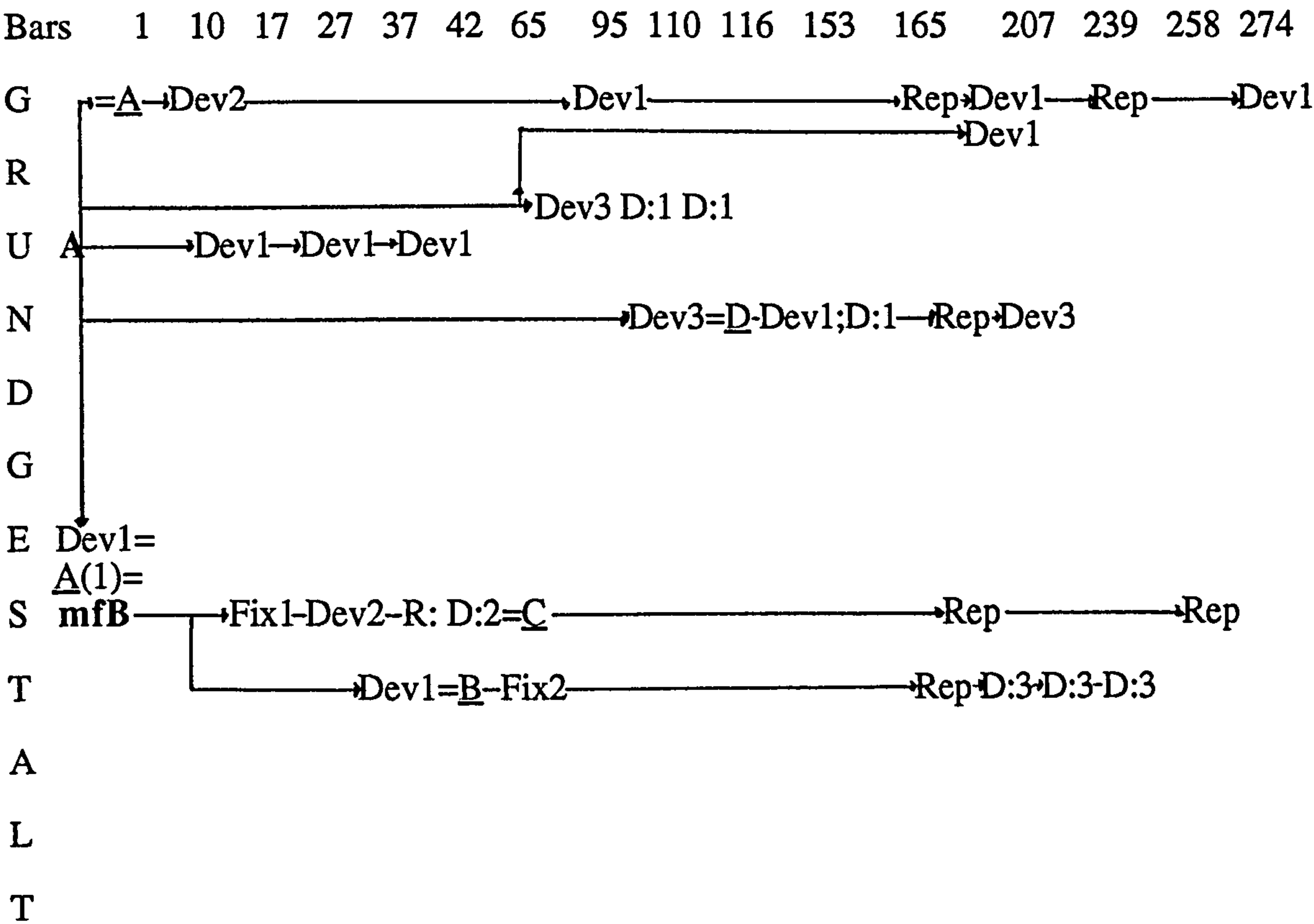
*Motive-form B* develops extensively throughout the movement, providing both thematic and transitional motive-forms. The first of these occurs at bar 21, where repetition and stretto-like effects a transitional section of music, as rapid successions of the motive-form, employing a further development of rhythm c, ensue. In bar 31, rhythms a and b are employed to create another transitional motive-form. In bar 42, a Developed: Class 1 variation occurs, creating a new thematic construct, theme B. This is repeated several times: at bar 55 as a Fixed: Class 2 variation; at bar 165 in counterpoint to a repetition of theme A, the *Grundgestalt*, where it is developed twice in succession; at bar 207 where it is in counterpoint with theme D, before being liquidated with theme D. A repetition of the B motive-form initiates a sequence of motive-forms that lead to the caesura in bar 65.

In bar 66 (viola), another new thematic construct, theme C is heard. This Developed: Class 2 variation reappears in two places: firstly, in bar 189/4 in vln 1, where it is in counterpoint to the thematic construct theme D mentioned above; secondly, at bar 258, where it is presented again by the viola before passing through vln 2 to vln 1 (in bar 262) where it is liquidated.

The thematic constructs B, C, and D have thus far been discussed. What

remains is to trace the repetitions and developments of theme A. Its first appearance is clearly as the *Grundgestalt*, in bar 1. This is developed in bar 10, where, due to the retrogradation of the intervals, the contour is altered. In bar 95, the cello presents an inversion, which, in Schoenberg's terms, is a repetition, but which creates a variation in contour to *Urmotiv* A. The next appearance is in bar 165 (vln 1), a repetition, at a transposed level that reveals the relationship between the two prime dyads d-c# and a)-g. This is developed by the viola and liquidated, then reinstated by the return of the vln 1 at the same pitch as before in bar 178, which also liquidates the theme. In bar 239, the cello repeats the opening phrase of the work, but is interrupted by the vln 1 providing a Developed: Class 1 of *motive-form B* that imitates it by using rhythms a and b. The cello concludes its original phrase and continues to repeat and develop the rhythmic motives a and b. The final appearance of theme A is at bar 274, where the *Grundgestalt* is reduced rhythmically to one motive, a. The thematic chart lists the derivations of the motive-forms from the *Urmotiv* A and *motive-form B*, together with the rhythmic developments of a, b, and c. A summary of the motivic progressions is given on p.176.

# Motivic Progressions Op.37/1



## 4.2.4.2 Op.37/2

The second movement is cast in a loose ternary structure, the A and B sections of which employ four thematic motives each, making eight in all. The opening melody derives its contour from the *motive-form B* in the first movement, and also develops the intervals therein (Ex. 4.2.70).

Ex. 4.2.70 (Op.37/2)

*motive-form B*

1 5 4 1 2

4

+ + - + -

Theme A

Op.37/2  
(vla., bar 285)

5 1 4 5

4

+ + - + -



In bar 286, the continuation of the phrase is made by inversion of the Aa motive with the internal intervals expanded by a semitone. The three-note group is immediately repeated with each of the three notes moving by a semitone or major third to the corresponding note of the next group (Ex. 4.2.71).

Ex. 4.2.71 (Op.37/2)

Op.37/2  
(vla, bar 285)




interval expansion: +1 (semitone)

(vla, bar 286)

This process is repeated in 288 - 289, with a Fixed: Class 2 variation of the A motive closing the phrase. The A motive is then liquidated by fragmentation to bar 306. At this point the second motive, B, occurs. This motive-form derives rhythmically from A, being a Developed: Class 3 derivative thereof. In bar 324, vln 1 presents the third thematic motive, C, derived from *motive-form B* in the first movement (Ex. 4.2.72).

Ex. 4.2.72 (Op.37/2)

*motive-form B*



Op.37/2  
(vln 1, bar 324) Theme C

Theme A returns in bar 339 and is fragmented to form theme D in bar 345 (vln 2), a Developed: Class 2 variation. Theme C reappears in 353, with variants in the accompanying parts. At 366, A recurs, firstly as fragments, then as the full theme from bar 374 onwards. At 374 and 378, the two utterances of the theme are both Developed: Class 1 rhythmic alterations, the second of which influences the modification of the Ac and Ad motives of the theme. The Ac and Ad motives are then developed throughout the next six bars in counterpoint to the Aa and Ab motives. Theme B recurs in bar 398 (viola) and is developed rhythmically. A and C reappear briefly at bar 412 and 415 and are liquidated to close the first A section.

The start of the B section (bars 430 - 518) is marked by a general pause and change of metre. Two motives are presented, E and F. E (viola) develops from themes C and A, whilst F (cello) is a Developed: Class 3 variation of D (Ex. 4.2.73).

Ex. 4.2.73 (Op.37/2)

bars 324-325 (vln 1)  
Theme C

bars 285-286 (viola)  
Theme A

bars 345-347 (vln 2)  
Theme D

bars 430-431 (viola)  
Theme E

bars 430-431 (cello)  
Theme F

Rhythmic patterns below the staves:

- Theme C: 1 4
- Theme A: 1 6 4 1
- Theme D: 5 1 5
- Theme E: 2
- Theme F: 1 1 5 1

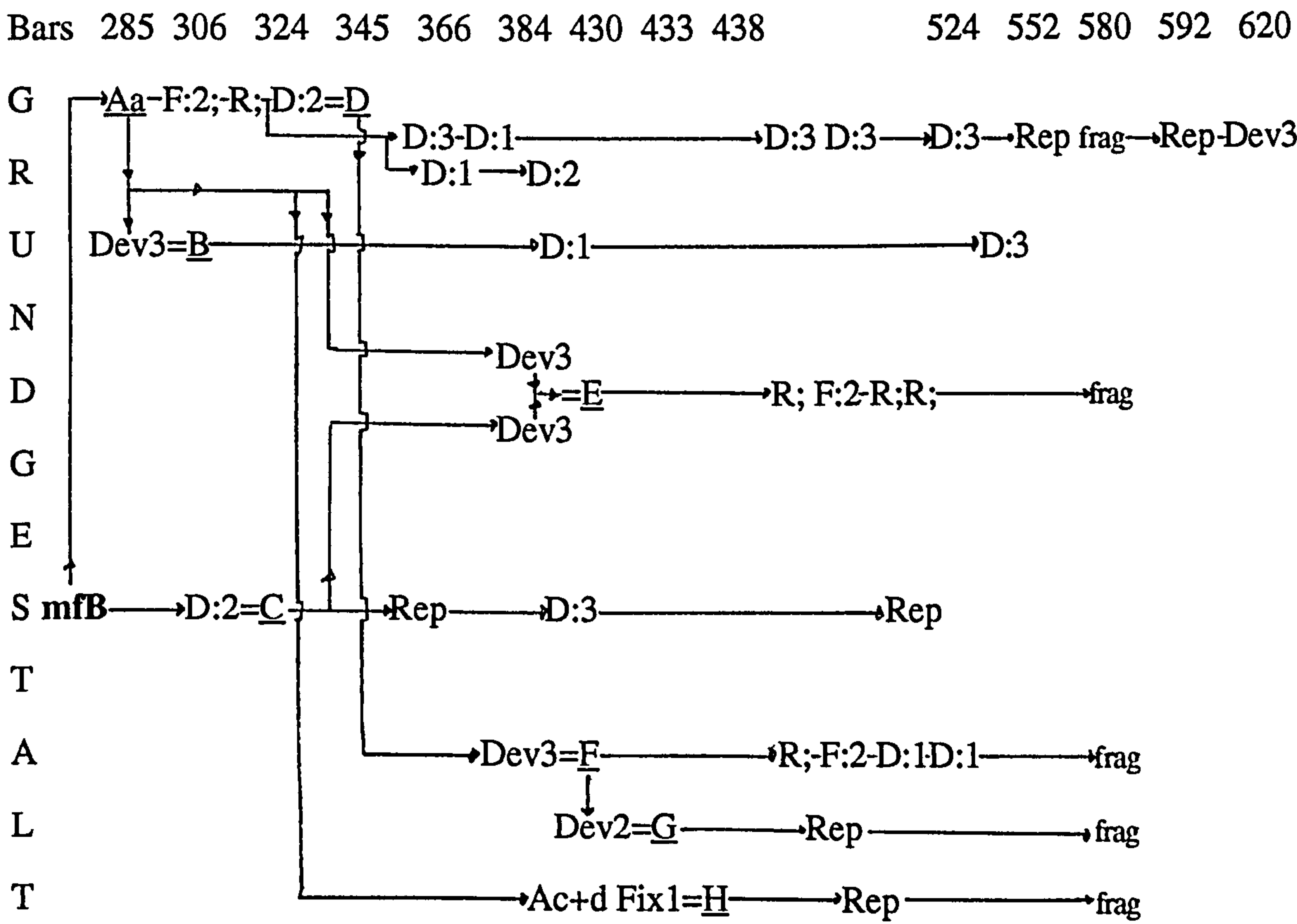
Plus/Minus signs below the staves:

- Theme A: + - + -
- Theme D: (+) + - -
- Theme F: (+) - - +

The continuation in bar 433 is effected by intervallic development of both E and F, as well as rhythmic development of F, forming G. The final new motivic construct to appear is in bar 438 (vln 2). This is a Fixed: Class 1 variation of Ac+d. From bars 442 - 462, the four motive-forms are repeated in the same order as before, with E and F occurring simultaneously. At 463 a further occurrence of E and F heralds the return of A, interspersed with fragments of G and H, until A appears fully at

474/3 (vln 1). A *Più Mosso* at 481 marks the return of E and F, which are developed further with A, leading to a repeat of C and a quotation of the *Grundgestalt Urmotiv* A in bar 498 (cello). In bar 518 the accompaniment to the opening theme returns, claiming thematic status in the absence of any of the thematic motives, and also marking the return of the A section. Theme A itself returns in bar 524, with theme B ten bars later leading to another development of the motives within theme A from bars 545 - 579. E, F, G, and H make brief reappearances, before being liquidated for the final return of A (from 592) closing the movement. A summary of the motivic progressions is given below.

### Motivic Progressions Op.37/2





#### 4.2.4.3 Op.37/3

In chapter 2.3 it was established that the rhythmic restructuring of the *Grundgestalt* in the opening of the third movement, but retention of other elements (with only two later changes of contour) closely associated the theme with the opening of the work.

In the *A B A B coda* form of the movement, the A sections are characterised by the initial unison theme. The B sections (bars 630 - 663 and 679 - 701), open with a theme derived from a combination of *motive-form B* and *Urmotiv A*, which is developed throughout the section. A further theme, C, is initiated in bar 645 (vln 1), demonstrating a close association with *Urmotiv A* and *motive-form B* as interlocking and alternating motives, and by default is linked thus to theme B (Ex. 4.2.74).

Ex. 4.2.74 (Op.37/3)

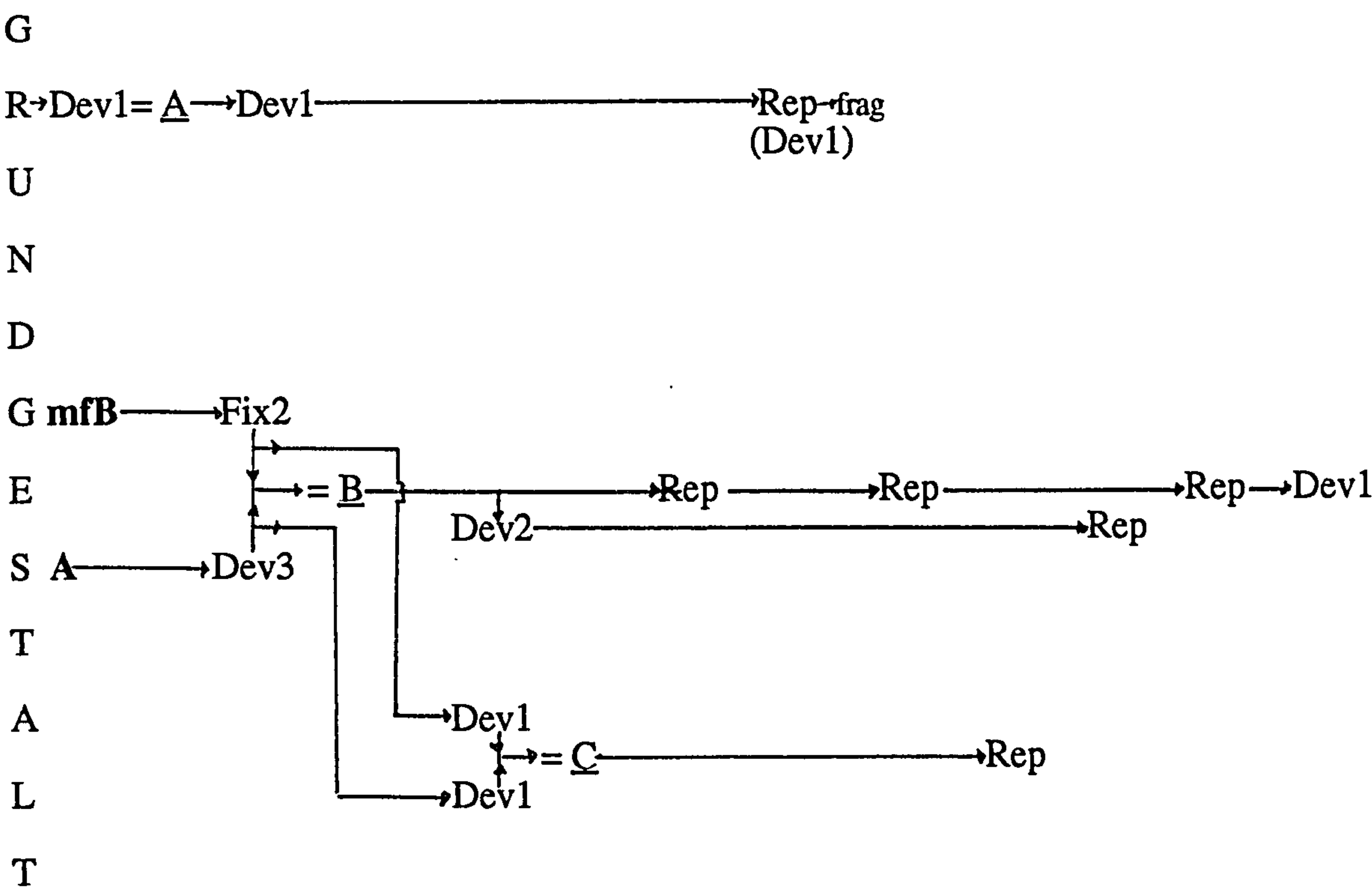
The example consists of two staves of musical notation. The top staff is labeled '630' in a box at the beginning. It shows a sequence of notes: a half rest, followed by a quarter note (F#), a quarter note (G#), a quarter note (A), a quarter note (B), a quarter note (C#), a quarter note (D#), a quarter note (E#), and a quarter note (F#). Below this staff, the label 'Motive-form B' is centered. The bottom staff is labeled '(Op.37/3. vln 1, bar 645)' at the beginning. It shows a sequence of notes: a half rest, followed by a quarter note (F#), a quarter note (G#), a quarter note (A), a quarter note (B), a quarter note (C#), a quarter note (D#), a quarter note (E#), and a quarter note (F#). Below this staff, the label 'Urmotiv A' is centered. To the right of the bottom staff, the label 'Motive-form B' is centered.

There is little further to discuss with respect to the thematic developments in this movement. More important are the pitch relationships that articulate the structure of the movement, discussion of which can be found on pp.232 - 235.

The motivic progressions of this movement are summarised below.

Motivic Progressions Op.37/3

Bars    614    623    630    638    646    655    664    679    681    686    692    701



4.2.4.4. Op.37/4

The appearances of the thematic and motivic constructs of the last movement, *Rondo*, occur within a framework more closely associated with a sonata, rather than a rondo. structure. Discussion of this aspect of the movement can be found on pp.184 ff..

The opening theme shares its contour with a different part of the *Grundgestalt* from *Urmotiv* A, namely, the retrograde inversion that appears at e c' a♭ g, which itself is the retrograde of the *motive-form* B contour (Ex. 4.2.75).

Ex. 4.2.75 (Op.37/1)

*Urmotiv C*

Note also the rhythmic similarity between this new theme and the extracted *Urmotiv* (labelled *Urmotiv C*). The new theme comprises four motivic units, Aa - Ad, which develop to create the opening sentence (Ex. 4.2.76).

Ex. 4.2.76 (Op.37/4)

Theme B contrasts in metre, tempo, contour and rhythm with A. It develops the intervals formed by the two dyads of A, semitone and minor third, merging the two dyads (See Thematic Chart).

Ex. 4.2.77 (Op.37/4)

bar 704 (vln 1) Theme A

bar 733 (cello) Theme C



The A theme returns and is briefly developed before a new thematic construct, C, is stated (bar 733, cello). C is a Developed: Class 3 variation of A, with an added upbeat derived from Ac (Ex. 4.2.77).

In bar 740, theme D (viola), a Developed: Class 1 variation of *Urmotiv A* occurs over continuing variations of C. Bar 746 establishes a further Developed: Class 2 variation of A, labelled E (viola, see Thematic Chart), interconnected with another fragment of the same idea. Further developments of this motive-form continue until bar 757, where the cello states the next new construct (F) accompanied by fragments of theme A motives (vln 1 & viola *pizz.*). This is a transformation of the two smaller intervals of the A theme (semitone and tone). Its intervallic and rhythmic structure invites comparison with the *Hauptstimme* motive in vln 1 bars 52 - 54, in the first movement. In the ensuing bars the rhythmic element of the semitone dyad formations alters to resemble the longer, more lyrical note values of theme A. In bar 767 the B theme returns, initially developing the original semitone-minor third formation before continuing (in bars 770 - 772) to develop the remainder of the theme rhythmically. This is succeeded by the first restatement of theme A (vln 1, bar 773ff.) accompanied by continuing triplet formations of B (which eventually permeate all four voices). In bar 780 the original thematic statement from bars 709 - 710 is segmented across the four instrumental lines, isolating the eb" (which alternates with d") in bar 780 at the same registral pitch as in bars 709 - 710.<sup>25</sup> The motive-form created by the triplet alternation of the eb" and d" (Ab1(1)) is a hybrid of the intervallic properties of F, with the rhythm of B, developing part of theme A.

In bar 787 a Transformation of the A theme occurs, whereby the rhythm and contour of the original intervals (i.cs 3,2,1) are both altered

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<sup>25</sup> Structural implications of this pitch are discussed in chapter 5.1.3

considerably. The transposition of the theme, which begins here on f<sup>♯</sup>", marks the first move away from the D<sup>♭</sup>-G<sup>♯</sup>(/A<sup>♭</sup>) axis of the preceding statements.<sup>26</sup> In bar 793 theme F returns, rhythmically developed, accompanied by a three-note motive (cello, bars 793ff.) reminiscent of motive-form C in the second movement (vln 1, bars 324ff.) (Ex. 4.2.78).

Ex. 4.2.78 (Op.37/4)

bars 324-325 (vln 1)

Theme C



bar 793 (cello)



Bar 807 sees the return of theme A, once again transformed from the original, and transposed to begin on e<sup>♭</sup>". The appearance (in bar 808, vln 1) of the descending fifth g<sup>♯</sup>- c' against the E<sup>♭</sup>-B<sup>♭</sup> in the viola and the e-B in the cello causes a conflation of the sonorities of the theme A statements in bars 704 and 726. The remaining bars of this section, to bar 827, develop a motive-form of a semitone plus fifth drawn from the initial vertical sonority of the movement.<sup>27</sup>

From bars 827 to 888 Schoenberg employs the procedure of 'parallel' *developing variation* in a similar fashion to that used to structure the final movements of the Op.10 and Op.30 Quartets, as example 4.2.79 shows.

<sup>26</sup> The structural role of the various transpositions of theme A is discussed in Chapter 5, pp.236-240.

<sup>27</sup> This harmonic aspect of the movement is also discussed in Chapter 5, pp.236-237.

Ex. 4.2.79a (Op.10/4)

Theme/motive	C2	C(2)	C3	C2(1)	D1(2)	C2(var)	C2	C2(2)	C2(1)	C2(2)
bar nos.	1 74	3 80	10 83	21 88	21 89	27 91	49 97	50 100	(21) 110	65 133

Ex. 4.2.79b (Op.30/4)

Theme/motive	A	B	C	D	A	E	F
bar nos.	1 99	14 119	22 128	33 144	41 151+186	62 191	67 193

Ex. 4.2.79c (Op.37/4)

Theme/motive	A	B	(A)	C	D	E	F	(B+A) G	A
bar nos.	704 827	714 835	(726)	733 841	740 846	746 852	757 863	(733) (866) 780 876	807 889
								(E+F)	

Bars 889 - end essentially present an ABA coda: the opening theme A (bars 889 - 912) is followed by theme B (bars 913 - 925), and the Ab part of theme A (from bar 706) forms the basis of the returning A section to round off the work.

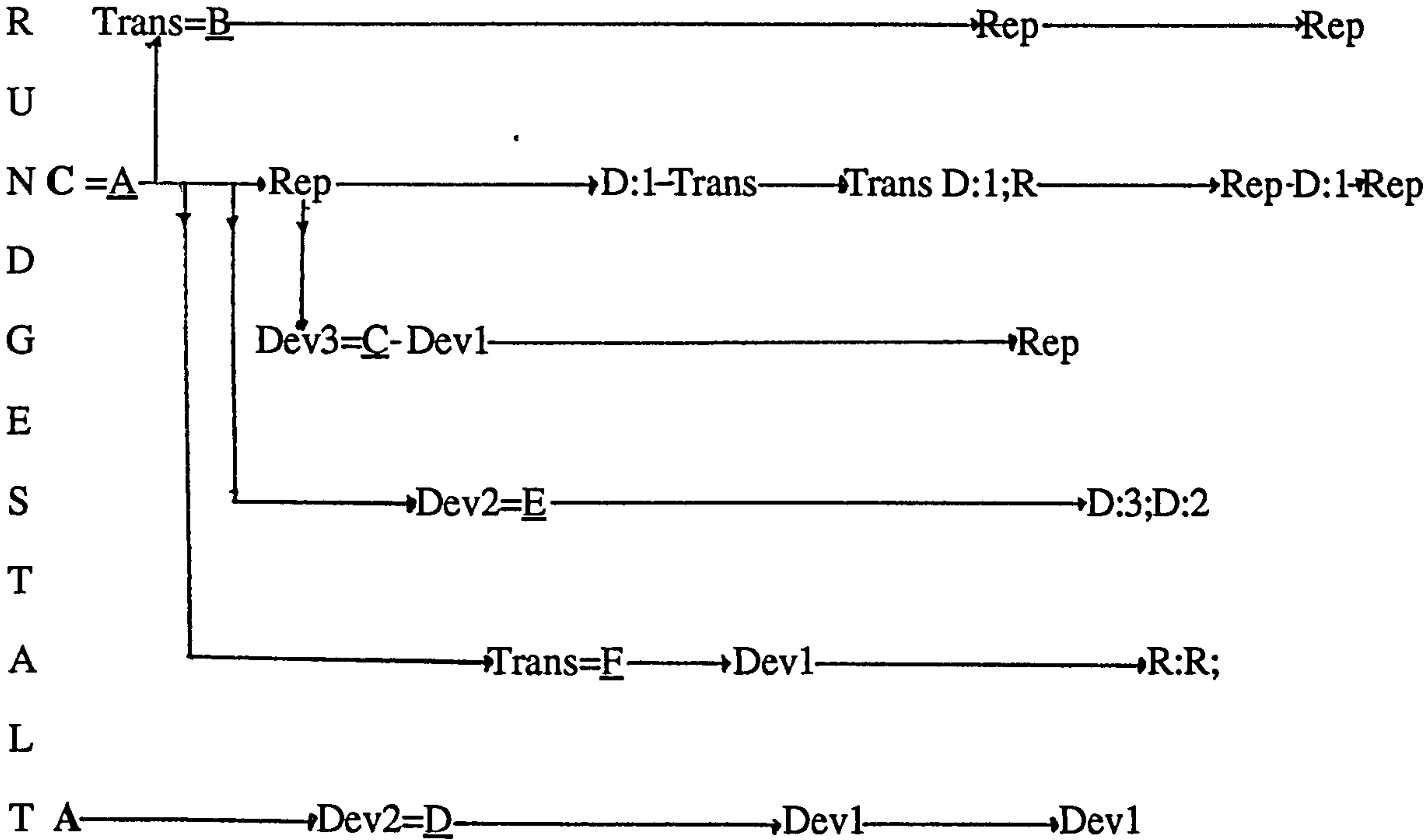
A summary of the motivic progressions is given below.



Motivic Progressions Op.37/4

Bars 704 714 726 733 740 746 757 787 793 807 827 841 846 871 889 913 926

G



## CHAPTER FIVE: ANALYSIS: MOTIVIC PROCESSES

### 5.1 Introduction

The following analysis of the motivic processes in the String Quartets has been divided essentially into two parts: Pitch Relationships and Rhythmic Relationships. Such divisions and subdivisions, whilst artificial, are felt necessary for the sake of clarity in the presentation of the complexities of the relationships and allow a more effective comparison of the processes between the works.

#### 5.1.1 Motivic Processes: Pitch Relationships

##### 5.1.1.1 Local Preservation and Development of Intervallic Relationships

From *Urmotiv* to motive-form

In all four Quartets, the initial statement, melodic or otherwise, has been understood as presenting the *Grundgestalt*, or basic shape, from whose *Urmotive* all subsequent material that generates the works' foreground continuity derives. The intervallic properties of the *Grundgestalt* can be seen not only to unfold and develop the foreground material, but to function also at deeper levels of the musical discourse.

The process of development by variation from the initial statement of the *Urmotiv(e)* to the establishment of the first motive-form (that is, a derivative of an *Urmotiv*) involves both the unfolding of pitches and intervals from the *Grundgestalt* and the retention and development of intervals and intervallic relationships. In order to elucidate how this is done, it is necessary to take the opening of each quartet in turn.

## Op.7 Quartet

The first thirteen bars of the work comprise developing variations of the *Grundgestalt* whose *Urmotive* are developed from phrase to phrase. The opening d - c# semitone dyad spawns further semitone dyads, which ascend over the space of five bars, emphasising the rising pitches d, f' and a'. This pitch emphasis is extended further by semitone to b♭' in bar 7, simultaneously with a variant of the Ab2 and Ab4 *Urmotive*. The repetition of semitones from b♭' - g' in bar 8 further develops the Ab4 motive into a motive-form (Ab4(1) ) at bar 8/4, beginning on f'. These two bars (7 and 8) increase the extent of the Ab2 motive, as the initial note, e, moves up to b♭', which finally rises to f' reflecting the original ascending motive in bar 2. The f' in bar 8/4 - 9/1 associates therefore with the f' in bar 2/3, and signals a second ascent of the D - F - A pitch collection an octave higher. The proliferation of descending semitones, from its inception at the opening, through the variations of the Ab4 *Urmotiv* and the circulation thereof in bar 8, eventually saturates the foreground in bars 12 and 13 in all voices (Ex. 5.1.1).

Ex. 5.1.1 (Op.7)

Ex. 5.1.2 (Op.7)

The musical score for Op.7 Quartet, measures 12-14, is presented for four instruments: Violin 1 (vln 1), Violin 2 (vln 2), Viola (vla), and Cello (cello). The notation is in treble clef for the violins and viola, and bass clef for the cello. The key signature has one flat (B-flat). Measure 12 is marked with a box containing the number 12. Measure 13 is marked with a box containing the number 13. Measure 14 is marked with a box containing the number 14. The score shows a complex interplay of semitone motifs across all four voices, with various melodic lines and harmonic textures. The violins and viola parts feature more active, melodic lines, while the cello part provides a more sustained, harmonic foundation. The overall texture is dense and intricate, reflecting the 'saturation' of semitone motifs mentioned in the text.

The outcome of the omnipresent semitone is the development of the



internal intervals of the Ab2 motive, which effects the continuation in the second sentence (bar 14ff.) with the inception of a new motive-form. The d<sup>b</sup>" - c" dyad, emphasised by repetition in bars 12 and 13 forms the basis for the new motive-form in bar 14 (vln 2). The same dyad is also present in the other lines of counterpoint (Ex. 5.1.2).

### Op.10 Quartet

In Chapter Two, the salient intervals of the *Grundgestalt* were shown to be the opening semitone and the major third ascent from the initial a to the c<sup>#</sup>' at the end of the first bar. The repetitions of this *Grundgestalt* emphasise the a - c<sup>#</sup>', which is then reversed to form the descent of major thirds. The descent from c<sup>#</sup>' to B<sup>#</sup> reflects the opening semitone interval. In the cello, bars 1 - 8, a gradual ascent through the motivic shape of the Aa1 *Urmotiv*, a-g<sup>#</sup>-f<sup>#</sup>, is reversed, forming an ascent from F<sup>#</sup> (bars 1 and 3) through G<sup>#</sup>/A<sup>b</sup> (bar 5) to A (bar 8). By bar 8, the repetition of the theme occurs at the pitch reached in bar 5, namely b<sup>#</sup>/c. In tandem with the bass motivic unfolding, the repetition occurs in A minor. The alteration of the natural fourth of the repeated theme in bar 9/3 to sharpened fourth has a multiple function. It breaks the pattern of the cycle of minor thirds initiated by the repetition of the theme in A minor; it also consolidates the major third ascent/semitone descent by condensing the move into three beats. Its change to a descending semitone also forms an association with the opening descending semitone, and with the longer range semitone c<sup>#</sup>' (in bar 2) with B<sup>#</sup> (in bar 5), which are thereby emphasised (in bar 10). Here, the Aa1 major third ascent is interrupted by an extension to a fourth leading to a". This semitone extension is accompanied by a movement in the bass, down from the F<sup>#</sup>' in bar 9, which alters the bass unfolding of a succession of minor thirds from the beginning. The semitone alteration in the bass forms a major third with the a" in bar 11 (vln 1) and an association with

the foreground c#<sup>'</sup> - a - f augmented triad in bar 3. This association is fulfilled by the bass movement to the lower C#<sup>'</sup>. The final descent of the a<sup>'</sup> to g#<sup>'</sup> in the vln 1 line ends the opening section as it began, but also gives rise to the interval content of the new motive-form in the continuation. The viola enters on c#<sup>'</sup> (bar 12), a major third from the a<sup>'</sup> of vln 1, and ascends and descends by semitones, imitating rhythmically and intervallically the vln 1 descent. The new motive-form also contains the developed interval from bar 9, that is, the tritone, formed between the a<sup>'</sup> and d#<sup>'</sup> reinforced by a concurrent tritone ascent in the viola.

### Op.30 Quartet

The primary intervallic motivation for the foreground continuity that effects the growth of the first new motive-form from the *Grundgestalt Urmotive* can be found in the initial and boundary intervals of the two *Urmotive*, A and B, namely the minor third and fifth of A, and the initial and boundary semitone of B. The opening descending semitone of the B *Urmotiv* is countered by an ascent in the bass (*Nebenstimme*). Similarly, the descent of the boundary interval of *Urmotiv* A is reflected by the other dyad that completes the *Nebenstimme* statement (Ex. 5.1.3). The initial note of the two *Nebenstimme* dyads reflects the third primary interval, the minor third (see also Ex. 5.1.3).

Ex. 5.1.3 (Op.30/1)

bars 5-7 (vln 1)

bars 8-12 (cello)

The interval expansion of the Ba motive into Ba1 in bars 11 - 12 (vln 1) is immediately contracted in the next bar to a minor third, which then pervades the lower voices, including the continuation in the cello. The three minor third dyads in this bar are associated with three previous ones, each having been displaced by two octaves as is shown in example 5.1.4.

Ex. 5.1.4 (Op.30/1)

The musical score for Example 5.1.4 (Op.30/1) consists of three staves. The top staff, labeled 'bars 5-7 (vln 1)' and 'bar 13 (vln 1)', shows a sequence of notes with a bracketed interval labeled 'ic3'. Below this staff is the label 'Urmotiv B'. The middle staff, labeled 'bar 1 (vln 2)' and '(cello)', shows a sequence of notes with a bracketed interval labeled 'ic3'. Below this staff is the label 'Urmotiv A'. The bottom staff, labeled 'bars 8-12 (cello)' and '(vln 2)', shows a sequence of notes with a bracketed interval labeled 'ic3'. Below this staff is the label '(Nebenstimme)'. The score is written in a key signature of one flat and a 3/4 time signature.

The boundary interval of the fifth in bar 1 creates a structural boundary which anticipates the melodic motivic continuity until bar 32, save for bars 22 - 25, where the boundary is altered by the viola consequent. This is due to several factors: firstly, the semitone dyad of *Urmotiv B* is developed into an 'upper neighbour-note' figure in bars 19 - 23, which effects a change in interval content to the viola consequent; secondly, the new boundary interval associates with the opening and closing of the antecedent in bars 20 - 22, as well as being a pitch-specific unfolding ascent of the a - c interval in *Urmotiv A* (Ex. 5.1.5, p.192). The upper neighbour-note figure in bar 19 - 23 associates pitch-specifically with the descent from f' to f#' in bars 9 - 10 and sparks off a series of dyadic neighbour-note formations which associate with the semitone dyads delimiting the motives within the B *Urmotiv* (Ex. 5.1.6).



### Ex. 5.1.5 (Op.30/1)

*Urmotiv A*

boundary ic5

(pitch specific) ic3

bars 20 - 25 (viola)

boundary ic5

### Ex. 5.1.6 (Op.30/1)

bar 9 (vln 1)

bar 7 (vln 1)

bar 19 (vln 2)

bar 25 (cello)

bar 27 (viola)

The three intervals also dictate the transpositions of the motivic overlappings that liquidate the opening section to bar 42. The installation of the new motive-form at bar 43 is the culmination of the neighbour-note dyads, creating a pitch-specific association with the opening dyad of bars 5 - 6, accompanied by repetitions of *Urmotiv A*, with entries a minor third either side of the initial statement in bar 43.

### Op.37 Quartet

The *Grundgestalt* of the fourth Quartet has been shown to comprise two rhythmic motives which interact with alternately ascending and descending dyads. The consistency with which Schoenberg constructs the melody emphasises the gradual rise of the descending even-note dyads unfolding a pitch structure of minor thirds (Ex. 5.1.7). This succession also reflects the boundary interval of the *Grundgestalt* (D - B), by completion of the

cycle of thirds. This pattern is also reflected in the disposition of the row in the lower parts in bar 1 - 6.<sup>1</sup>

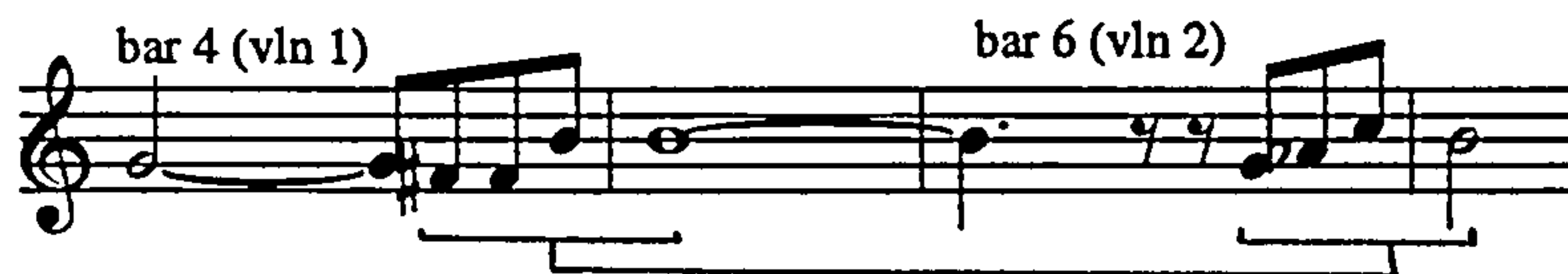
Ex. 5.1.7 (Op.37/1)

In bars 4 - 6, the successions are consolidated, as the vln 2 *Nebenstimme* and the cello outline a minor third ascent and the viola rises through a two minor thirds. The importance of the rhythmic alteration in bar 4 that ties rhythm a to b producing c has been shown to influence the continuation in bar 6 (see pp.172-174). This rhythmic development proceeds hand-in-hand with the intervallic relationship between the final three notes of the *Grundgestalt* and the beginning of the continuation. The ascent from g - b in bar 4 - 5 is reflected in the repeat by the vln 2 in bars 6/3 - 7/1. The duration of the b in bar 7 emphasises its melodic importance. With the boundary notes of the initial g (in bar 6) and f# (at the end of the phrase in

<sup>1</sup> This interpretation sheds a somewhat different light on the traditional tendency to view these opening bars solely from the perspective of the partitioning of the row into vertical trichords distributed across the three lower voices. See J. Rufer, *Composition with Twelve Notes*, (London, 1961); O. Neighbour, 'A Talk on Schoenberg for Composers' Concourse', *The Score*, (1956), p.19; E. Klemm, 'Zur Theorie der Reihenstruktur und Reihensdisposition in Schönbergs 4. Streichquartett', *Beiträge zur Musikwissenschaft*, 8 (1966), pp.27-49; D. Lewin, 'A Theory of Segmental Association in Twelve-Tone Music', *Perspectives on Contemporary Music Theory*, ed. Boretz and Cone, (New York, 1972), pp.181-182; G. Perle, *Serial Composition and Atonality* (Berkeley, 1978), pp.84-85; M. Hyde, 'The Roots of Form in Schoenberg's Sketches', *Journal of Music Theory*, 24/1 (1980), pp.10-12; A. Mead, 'Structural Differentiations Provided by the Twelve-Tone System', *Perspectives of New Music*, 24/1 (1985), pp.120-157.

bar 7) an association at pitch-specific level with the final three notes of the preceding phrase is made, thereby knitting the opening two phrases together (Ex. 5.1.7a).

Ex. 5.1.7a (Op.37/1)



The descending fourth created by the b - f# then provides for the continuation of the third part of the first section through its development by transposition to e<sup>b</sup>" - b<sup>b</sup>' followed by an octave displacement of it at the beginning of bar 10. In the third main phrase, bars 10 - 16, the other primary intervals of the *Grundgestalt* come to the fore. The semitone and major third intervals are formed by pitches which hold similar metric positions to those in the *Grundgestalt* that unfolded the sequence of minor thirds (Ex. 5.1.7b). The conflict between major and minor third shapes the procession of the lower voices, as the trichord groupings of the vln 2 unfold over successive minor thirds until the final trichord. The cello also unfolds a further succession of minor thirds as the initial note of each group of trichords demonstrates (Ex. 5.1.7b)<sup>2</sup>.

Ex. 5.1.7b (Op.37/1)



<sup>2</sup> The metric placement of the cello notes F# (in bar 12) and E<sup>b</sup> (in bar 15) and the vln 2 notes a and c' (bars 12-13) underpins, perhaps more emphatically, a different minor third sequence from that in example 5.1.7b.



The continuation of the next phrase from bar 16/4ff. is effected by the invariance of the intervallic properties of both the preceding *Hauptstimmen*, that is, the c#' - d descent of a major 7th in the vln 1 bar 13/4 - 14/1 and the ascent and descent of the major third in the vln 2 bars 13/3 - 16/2 (Ex. 5.1.8).

Ex. 5.1.8 (Op.37/1)

The musical score for Ex. 5.1.8 (Op.37/1) consists of three staves: Violin 1 (vln 1), Violin 2 (vln 2), and Cello. The score is divided into two systems. The first system covers bars 13 to 16, and the second system covers bars 17 to 20. The cello part is indicated by a bracket and the label '(cello)'. The notation includes various musical symbols such as notes, rests, and accidentals.

The cello *Hauptstimme* is once again controlled by the unfolding of a minor third succession through the rhythmic emphasis of the f# - a - eb'. The existence of an hierarchy, created by the initial notes of successive motives, has demonstrated an unfolding of the minor third sequence across the phrases opening the work. This essentially middleground process is the fulfilment of the boundary interval of the *Grundgestalt*. The B motive-form is employed in bars 21 - 24 by polyphonic layering which in turn leads to the first presentation of the melodic line divided between two voices (bars 25 and 26). The rhythmic pattern is the same as in the initial transitional bar (bar 21), but the durational prolongation of the first and third beats in both bars creates a new intervallic shape of an ascending and descending tone separated by a minor third. This intervallic alteration can be understood as an expansion of the semitones in the B motive-form within the existing boundary (Ex. 5.1.9). In bars 27 and 28 this new intervallic structure becomes the framework for the development of the first new motive-form, which is a development of *Urmotiv A*, the initial descending and ascending semitone dyads.

### Ex. 5.1.9 (Op.37/1)

(vln 2, bar 25)



In all four Quartets, it is clear that the local preservation and development of the intervallic relationships in the foreground continuity contribute to the *developing variation* of the musical discourse in a similar manner, irrespective of the presence (or absence) of a tonal centre. The unfolding of a pitch shape was shown to exist in each work, dictating the appearance of motive-forms both at specific pitch levels and by transpositions. The predominance of a particular interval (or intervals) in one phrase was also shown to influence the continuation, the intervallic invariance therefore providing stability around which other elements could develop. Finally, particular intervallic motives were shown to develop into a framework for the generation of new motive-forms.

#### 5.1.1.2 Long-range Intervallic Development and Preservation

The motivic progressions, explored and catalogued in section 4.2, delimited the four categories of element preservation and alteration. Transformation, the last, or most remote of these, has been defined as the preservation only of the internal or boundary intervals of a motive; or, to put it the other way around, it is the discarding of the original contour and rhythmic elements of the motive. The motivic transformations that occur in the Quartets often do so at structurally strategic points, delimiting a new thematic construct, and thereby a new 'structural unit', possibly even a new movement within the work.

The three transformations that occur in the First Quartet have various functions. The first initially transforms the *Ab1 Urmotiv* at the first main structural divide, namely, the beginning of the transition between the Expositions of Principal and Secondary material. This transformation goes on to provide the theme of the 'Scherzo' section/movement. The second transformation generates thematic material for both 'movements' of the second half of the work, the Slow movement and the Rondo. The third transformation generates the second theme of the Slow movement. This final transformation marks the thematic divide between first and second 'halves'. The return of earlier themes in the Rondo does not generate new material by transformation. Rather it recapitulates by presenting Developed and Fixed motive-forms of the earlier themes. Schoenberg is therefore able to divide the entire structure into two 'halves' and four movements within a cyclic form that creates a continuous span by the interlocking of the first movement material with the subsequent movements.

A similar process occurs in the Op.30 Quartet. Although the extent of integration here is not so great as in the Op.7 Quartet, the motivic transformations serve to both to delimit and relate the four movements in much the same way. Transformation of the *Urmotive* of the *Grundgestalt* provides all the thematic material of the third movement, as the progression summary on p.167 shows. This complete transformation is unique to the third movement, as can be seen by comparing its opening thematic development with that of the second and fourth movements. There are also elements of transformation that generate the second movement, but the thematic material generally stems from the developments of *Grundgestalt Urmotive*. The fourth movement presents developments of thematic material from previous movements, as does the fourth movement of the Op.7 Quartet, creating a cyclic rondo: in both, the



episodes are repetitions and developments of earlier thematic constructs.

In the Op.10 Quartet, the transformation of the first *Urmotiv* in the *Grundgestalt* regenerates the two intervals of semitone and major third into a new theme. The significance of this transformation is greater than simply providing new thematic material to divide the first and second movements from one another. Schoenberg achieves the structural division of movements in ways other than transformation, as the motivic progression summaries demonstrate (see pp.130, 141, 144, and 151). The transformation in the second movement creates the fourth thematic construct, D. This, in turn, is transformed in the fourth movement at the point where the singer utters the words "Ich löse mich in Tönen". The fact that no transformation occurs in the third movement (a process operative in the other three Quartets) further integrates it with the previous two, and, as its progression summary reflects, supports Catherine Dale's view that consider the movement to be the 'development section' of the work<sup>3</sup>.

The quantity of transformed *Urmotive*, motives and motive-forms, is small in all of the Quartets except the Third. There are several in each of the first three movements of this Quartet, the more significant of which have already been discussed. However, the necessity for transformations at structurally less significant points suggests that Schoenberg was more concerned with a need for thematic variety than with preserving the elements of rhythm and contour that provided the conditions of stability. This necessity may have been due to the distinctive contour and repetitive rhythmic pattern of the *Grundgestalt Urmotiv A*, and its virtual 'overuse' in the first movement. It is possible that Schoenberg was not yet convinced that he was able to generate enough material using his 'new method', and as such, the work is a compositional experiment forming part of the evolution

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<sup>3</sup> Dale, *Tonality and Structure*..., p.169.

of his twelve-note method.<sup>4</sup> By the time Schoenberg came to write the Fourth Quartet he was confident of his ability to create and develop motives and motive-forms without lapsing into monotony, witness the relatively rare incidence of transformation.

The Third Quartet excepted, Transformation, in the sense defined above, is a comparative rarity, and as such, is not therefore the only process that delimits the structure of a work, although its presence at strategically important points vindicates my interpretation of its use as a structural device.

#### 5.1.2 Contour: Preservation and Development.

The preservation or development of the contour element of the motive in the process of development of that motive is inevitably integrated with the preservation and development of rhythm. The criteria in Chapter 3 state that a Developed motive is so categorised due to the alteration of either Rhythm or Contour, but not both. Thus, if a contour is developed, then the rhythm is the stabilising element and vice versa.

The relational aspect of motivic development, that is, the comparison of developmental features between a motive and a subsequently derived motive-form (rather than the continual aspect which concerns the moment-to-moment motivic development) demonstrates a high degree of contour invariance or preservation in all four Quartets. On the whole, the motivic progressions of Developed: Classes 1, 2, and 3, develop the rhythmic feature as opposed to the contour. Example 5.1.10 (pp.200-201) presents the motivic progressions of motives from each of the Quartets. It can be observed that, in each case, the rhythmic element of the motive-form is altered (considerably, in Opp.30 and 37) in order to promote development.

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<sup>4</sup> Ethan Haimo discusses, from a rather different perspective, the 'transitional' nature of the Third Quartet. See Haimo, *Schoenberg's Serial Odyssey*, p.149ff.

Ex. 5.1.10 (Op.7)

Ab1

a b c

A63 A58 A57

D1 A83 B1

F29 K16 C50

F80 L35


F115 M10

H19 N4

M37

Ex. 5.1.10 (Op.10)

(Op.10/1, bar 15)



(Op.10/3, bar 2)



(Op.10/3, bar 15)



"die mich um dü - stert"

(Op.10/4, bar 21)



"Ich füh - le Luft"

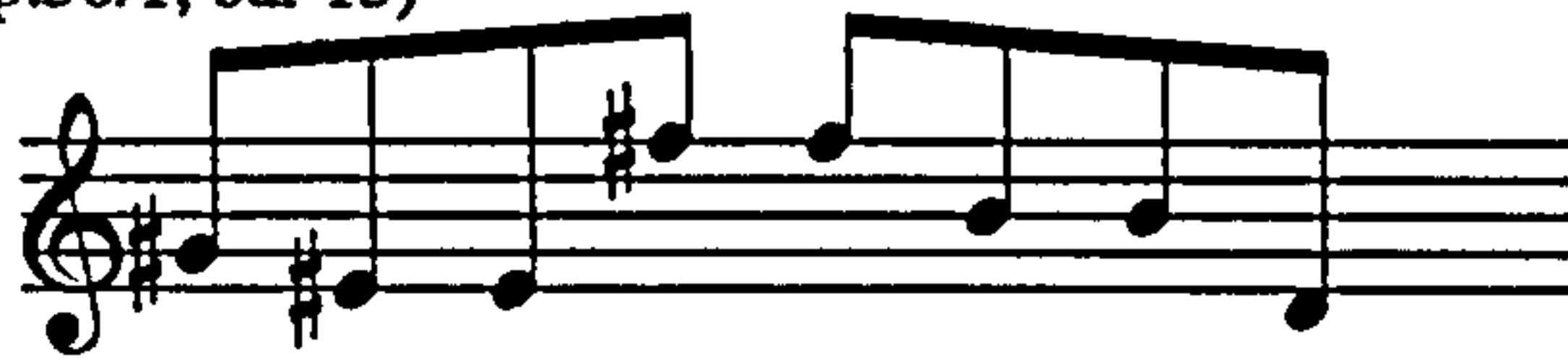


Ex. 5.1.10 (Op.30)

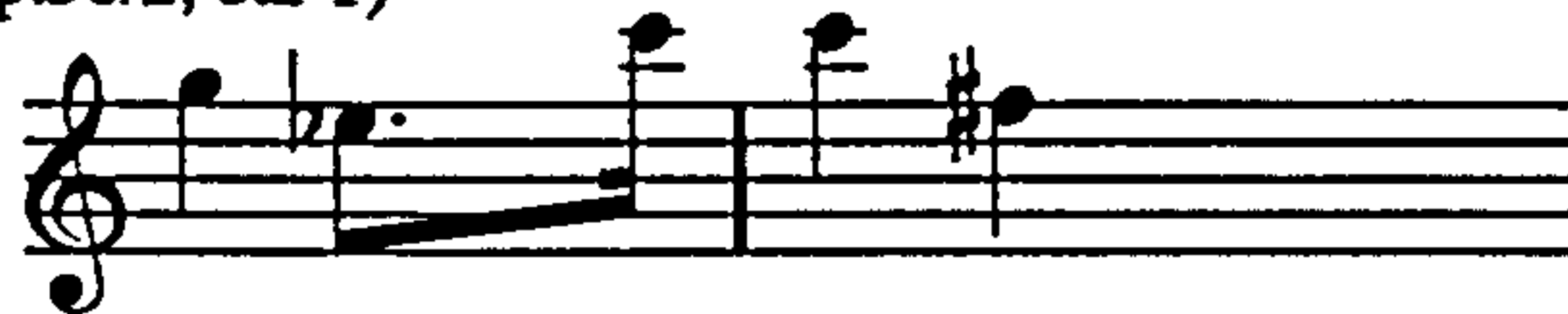
(Op.30/1, bar 1)



(Op.30/1, bar 13)



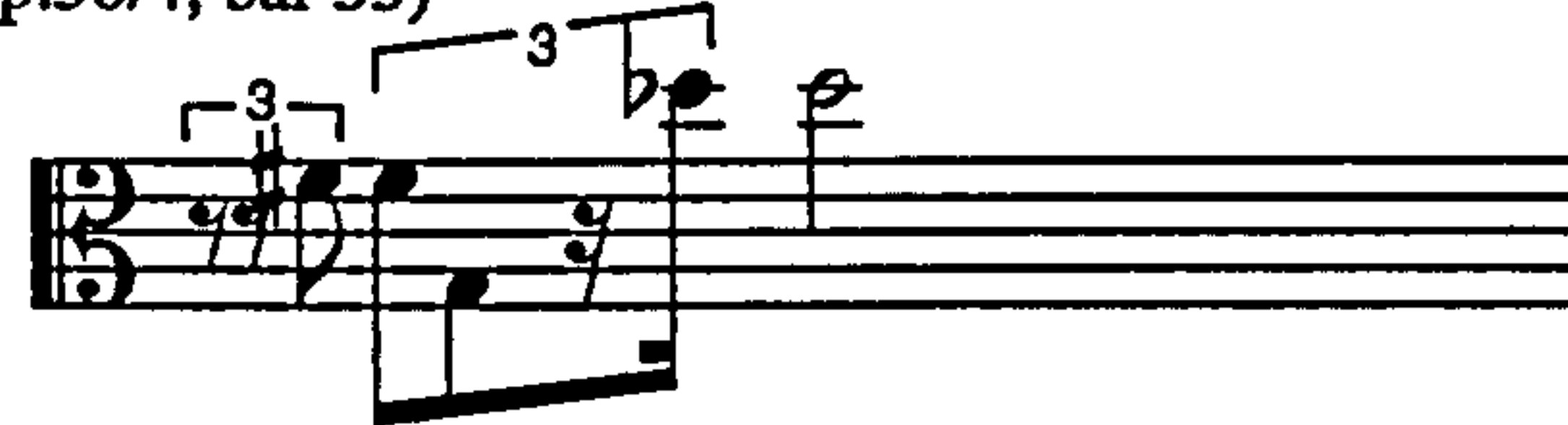
(Op.30/2, bar 1)



(Op.30/3, bar 27)



(Op.30/4, bar 33)

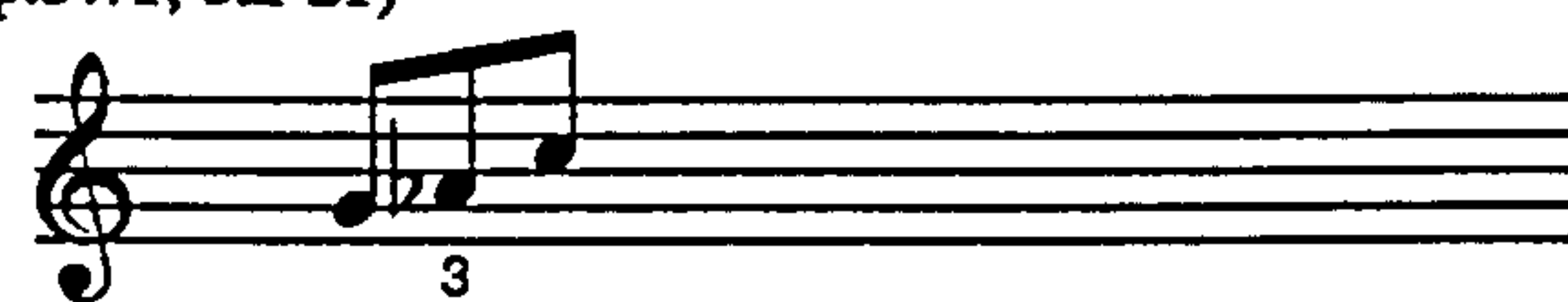


Ex. 5.1.10 (Op.37)

(Op.37/1, bar 6)



(Op.37/1, bar 21)



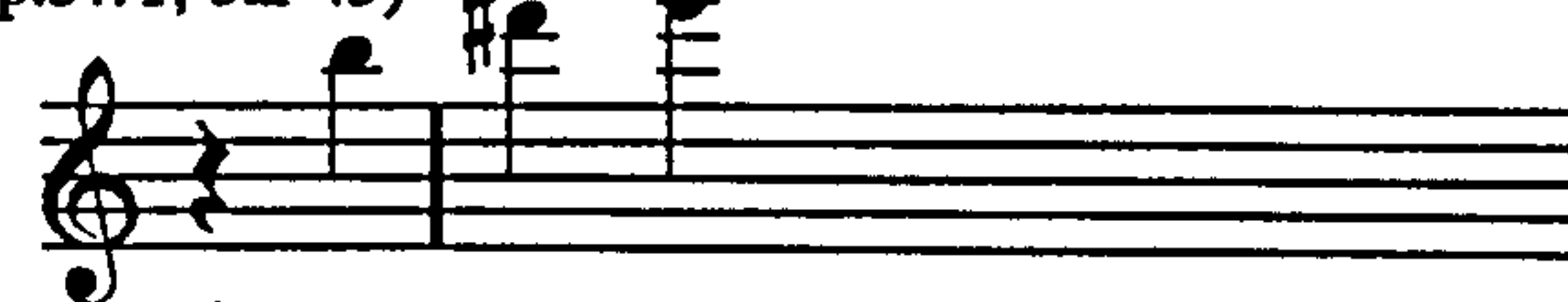
(Op.37/1, bar 31)



(Op.37/1, bar 42)



(Op.37/1, bar 45)



(Op.37/1, bar 48)



(Op.37/1, bar 66)



Whilst it is difficult to corroborate this view without more extensive musical examples, it is hoped that reference to the motivic progression summaries, thematic charts and musical scores will vindicate such a claim. Thus, contour for Schoenberg is a prime feature of the unification of surface material in music from all periods. To this extent, contour ceases to be a prime feature of *developing variation*, except in the sense that it remains a constant for much of the development of *Urmotiv* into motive-form and thereafter.

The exceptions to this generally invariant feature occur when a rhythm is repeated sufficiently for it to become a constant or instantly identifiable feature itself. Into this category falls motive C in the first movement of the Op.10 Quartet (vln 1, bar 58). Initially, the rhythm of this quaver/dotted semiquaver figure is repeated often enough for the change of contour, which first happens in bar 94 (vln 2), not to restrict this bar's retrospective relationship with bar 58. The original contour is reinstated further on and remains constant thereafter. In Op.7, the initial development of Ab2 in bar 14 is a variant of the contour. Again, this occurs due to sufficient repetition of the rhythmic aspect of the Ab2 motive in the initial 7 bars of the work. In Op.30, the opening rhythm and contour are both made memorable by the continuous repetitions in the first 22 bars. Thus either may be varied, and Schoenberg decides to alter the contour aspect initially. The note repetition in this particular motive is a salient feature which permits fragmentation of the motive without it becoming too remote. The potential for further remoteness by extensive repetition is, however, fulfilled in bars 154 - 173. In the second movement of Op.37, the two rhythmic patterns stated by the viola in bars 1 - 3 are repeated in a symmetrical period construction. Once again, this process allows the contour to develop without restriction.

### 5.1.3 Aspects of Formal Structure

Several writers have discussed the pitch processes that contribute to the broad construction of form in the four quartets. Their work will be discussed as it becomes relevant in the following survey, which takes each quartet in turn.

#### Op.7 Quartet

In Chapter 3 of this study, Severine Neff's view of 'substitute notes' in the opening of the Op.7 Quartet as reflecting aspects of the 'large-scale tonal plan' of the work was rejected, due to its rather illogical reasoning. My proposed alternative demonstrated the existence of a symmetrical key structure formed of alternate semitones and tritones centred around the tonic D (Ex. 5.1.11).

Ex. 5.1.11 (Op.7)

The diagram illustrates the large-scale tonal structure of the Op.7 Quartet, centered around the tonic D. It features two staves, Treble and Bass, with various musical notations and labels indicating formal sections and pitch relationships. The labels include:

- Principal Exposition: Secondary theme
- Scherzo episode
- Scherzo dev.
- Principal Exposition and Development
- Scherzo theme; Principal theme at L38
- Slow movt.; Rondo
- Scherzo second theme; A57 recap. at L52
- bar 14ff.
- Slow dev.; Rondo episode
- Trio; Slow movt. second theme

This pattern shows a more comprehensive view of the influence of the *Grundgestalt* intervals of semitone and tritone on the large-scale structure of the work than that proposed by Neff. In her article on the Op.10 Quartet<sup>5</sup>, Catherine Dale discusses the symmetrical encircling of pitches on

<sup>5</sup> C. Dale, 'Foreground Motif as a Determinant of Formal and Tonal Structure in the first movement of Schoenberg's Second String Quartet', *The Music Review*, 52/1 (February 1991), pp.52-63.



the surface as reflecting tonal symmetries unifying the middleground. She quotes David Lewin's article 'Inversional Balance as an Organizing Force in Schoenberg's Music and Thought' with reference to the symmetrical key relationships in the opening section of Op.7.<sup>6</sup> Lewin's theory is based on Rameau's view that the subdominant - tonic relationship in a key is an inversion of the dominant - tonic relationship. The balance of these two relationships either side of the tonic permits key establishment and identification. Lewin extends this theory by analogy to incorporate Schoenberg's attitude to inversional balance around a central tone (not necessarily a tonal centre) giving as his first example the encircling of the initial D minor tonality of the Op.7 Quartet by statements of the theme in E $\flat$  minor (bar 30ff.) and C $\sharp$  minor (bar 54ff.) before a restatement in the tonic D minor at bar 65. Lewin considers this broad progression as being as 'strongly tonicizing' as the analogous I:V::IV:I progression. He further extends his theory to twelve-tone music, noting referential inversional balances of the total chromatic in ways analogous to those induced by tonal centres, and drawing comparison between Schoenberg's use of hexachordal areas and the disposition of keys in tonal music. This will be considered later with reference to the Opp.30 and 37 Quartets.

My proposed alternative to Neff's reading of the tonal plan adapts (to an extent) Lewin's theory of inversional balance. The extension of Neff's initial three keys, D minor - E $\flat$  minor - C $\sharp$  minor, outward by alternate semitone and tritone results in the next pair being A (minor) and G (minor), both of which are again associated with the Principal Exposition material at rehearsal letter H. With the exception of the B minor tonality, the keys above the central D reflect those key areas of the second part of the Quartet, the Slow and Rondo sections, and those below the centre

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<sup>6</sup> D. Lewin, 'Inversional Balance as an Organizing Force in Schoenberg's Music and Thought', *Perspectives of New Music*, 6/2 (1968), p.4.

indicate the key areas in the first part. Thus there is a global inversive balance around the structural division at letter K on one level, and a more specific inversive balance of the Principal Exposition material on another.

Further on in her article, Neff mentions a sketch underneath which Schoenberg wrote the word '!!!!*verwenden*' (use). She states 'we will never know exactly how Schoenberg planned to use this sketch. One can only speculate on how the inherent structure of these measures contributes to the coherence of the work.'<sup>7</sup> Her ensuing comments about this sketch material, however, leave much about Schoenberg's use of it unsaid.

Example 5.1.12. shows the rising alternate fourths and major thirds in the cello in bars 8/4 - 10/1 of which the *verwenden* sketch is the source. The alternating pattern is completed in brackets to form a collection between the E $\flat$  and e $\flat$ ' (T0) and presented together with the other two forms yielded by transposition (T4 and T2).

Ex. 5.1.12 (Op.7)

The image displays three musical staves, each representing a different transposition of a pitch set. The staves are labeled at the top as 'Bar 8/4ff.', 'Bar A1ff.', and 'Bar A14ff.'. Below each staff, the transposition is identified as T0, T4, and T2 respectively. The notation shows a series of notes in the bass clef, with some notes in the treble clef for T0 and T4. The notes are connected by lines, indicating a melodic sequence. The T0 staff starts with a B-flat note, while T4 and T2 start with higher notes, reflecting their transposition.

The most significant structural use of these pitch sets can be found in the Transition to the Secondary Exposition (beginning at rehearsal letter A) and the Secondary material itself (bars A71ff.). The Transition is a fugato passage with, initially, evenly-spaced entries from each voice in turn.

<sup>7</sup> Neff, op. cit., p.33.

Tracing the initial fourth of each voice entry, from vln 2 in bar A2 to vln 1 in bar A9, reveals the pitch succession drawn from the T4 *verwenden* form. The next series of four entries beginning in bar A14 yields the T2 form. Thereafter, there occurs a series of entries from all three forms until bar A33ff. where a profusion of T4 forms saturates the texture until the liquidation of the material with increasingly shorter entries of all three forms alternately. As was explained earlier (pp.103 - 104; pp.112 - 113), the transition material develops into the Secondary Exposition material. The various entries of the Secondary theme are again controlled by the three *verwenden* forms. The initial theme in bar A71 is based on T4 (possessing the leap of a fourth g-c'). This has been preceded by the T0 and T2 forms in the coda of the transition (bars A61 and A67). The C major theme at A71 is answered in the dominant at A76 (viola) which is a T2 derivative. The continuation in bars A82 - A92 is a series of entries and diminutions all from T0. The pattern of forms from A61 - A92 [ T0 T2 T4 T2 T0 ] shows a symmetry around the Secondary theme itself (in bold type), which is presented in a different transposition from the original form in bar 8/4. The pattern also demonstrates an association of the bar A61 and continuation entries (in bars A82ff.) with the original form.

Neff's limited commentary on the use of the *verwenden* sketch focuses on what is in fact its next significant structural employment, that is, in bars C35ff. Neff firstly attributes significance to the C - E interval in bar C30 (cello and viola), before linking it both to the *verwenden* sketch as well as to the rationale for successive entries of the transition material in bars C35ff.<sup>8</sup> Her explanation here takes into account only the first three entries in bars C35 (cello and viola) and C36 (vln 1), and ignores the remaining ones. An alternative reading to these entries with the above 'forms' in

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<sup>8</sup> Ibid., p.44.



mind shows three double entries of each of the three forms before the motive is fragmented into overlapping repetitions of the T0 form (Ex. 5.1.13).

Ex. 5.1.13 (Op.7)

The image shows a musical score for Ex. 5.1.13 (Op.7). It consists of four staves. The top staff is in treble clef and contains a sequence of notes with accidentals, labeled 'C35' above it. The second staff is also in treble clef and contains notes with accidentals, labeled 'T2' above it. The third staff is in bass clef and contains notes with accidentals, labeled 'T4' above it. The bottom staff is in bass clef and contains notes with accidentals, labeled 'T0' above it. There are various musical notations including notes, rests, and accidentals throughout the score.

The subsequent development of the Scherzo theme (at letter E) from the transitional material further develops the *verwenden* idea. The theme itself derives from T4 (the two rising fourths of the theme D $\flat$  - G $\flat$  and B $\flat$  - E $\flat$  are separated by a major third). The excursion to the flattened mediant in bar E10 also extends the *verwenden* pattern downwards from the D $\flat$ /C $\sharp$  to A. Example 5.1.14 summarises the appearances of the Scherzo theme and its secondary theme (bar E50ff., denoted by square brackets).

Ex. 5.1.14 (Op.7) Transposed form

Bar	E1	E50	E68	E81	E92	E106	E109
SCHERZO	T4	[T0	T4]	(T2)	[T2]	T4 +	T0
Bar	F45	F55					
TRIO	T2	T4					
Bar	G34	G50	G67,70,73,76	G82,85,87	G89	G91	
SCH.DEV	T2	T0	T2-T2-T2-T2	T2-T2-T2	T4-T4	T4-T4	

The entries in this Scherzo section of the work show a preponderance of

T4 and T2 forms. Particularly significant are the thematic entries at E (the Scherzo theme), E106 (its reprise), F44 (the Trio theme), and G34 (the Scherzo development), since, like the Secondary theme, they present alternative *verwenden* forms to the original. In this way Schoenberg creates an essential structural unity throughout the first half of the quartet, whose thematic subsections are constructed around a pitch-class specific process initiated by the original form.

### Op.10 Quartet

Catherine Dale's 1991 article on Op.10 (mentioned earlier with reference to David Lewin) is directly relevant to this part of the study, so it is appropriate to discuss it here. The article examines Schoenberg's departure from the theoretical sonata form model and 'demonstrates, moreover, the way in which Schoenberg accommodates his immediate compositional concern with motivic unity in a tonally expanded framework through the articulation of the form by thematic recurrence rather than by a conventional tonal scheme.'<sup>9</sup>

In fact, Schoenberg abandons the conventional relatives of the tonic f# minor in favour of the more remote and indirectly related keys (regions) which Dale names as D minor, F major, A minor, and C major. According to Dale, the opening twelve bars allude to three of these regions, F major, A minor, and C major. The A minor region is perhaps the most obvious, being the restatement of the theme a minor third higher than before. The F major reference is provided in bar 11, as the entrance of the viola and cello 'breaks the sequence of descending minor 3rds in order to introduce the major 3rd, A/F natural. This interval reflects the foreground

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<sup>9</sup> Dale, 'Foreground Motif...', p.52.

succession of bar 3'.<sup>10</sup> The presence of the third region Dale refers to here, C major, is to my mind a tenuous assumption. The B#/C in bar 5, accompanied by A $\flat$  in viola and cello, creates the aural impression of a progression to V of V in f# minor, particularly within the context of the preceding harmony. The octave Cs in the following bars obviously give emphasis to this note, but this emphasis, to my mind, is not sufficient to support the presence of the region C major. The point at which the C has a different function to the third of the chord of A $\flat$ /G# is determined by the motivic movement of the cello in bar 7. The implication here, is that the (A $\flat$ /G#)/C, against the B in the bass, fulfils a substitute dominant function in A minor (Ex. 5.1.15).

Ex. 5.1.15 (Op.10/1)

The musical score for Ex. 5.1.15 (Op.10/1) consists of two staves. The top staff is in treble clef and the bottom staff is in bass clef. The key signature is three sharps (F#, C#, G#) and the time signature is 3/4. The music features a series of chords and melodic lines. Below the staves, the harmonic analysis is provided for each measure:

f#:	I	VII	I <sup>4-3</sup>	VI <sup>7</sup>	II				
c#:				II <sup>7</sup>	V				
a:				VI <sup>(#5)</sup> <sub>#3</sub>				V <sup>#5</sup>	I

There is, therefore, no contextual evidence to demonstrate the presence of the C major region at this point, or any other in the first twelve bars. Any C major potential is not realised until bars 92ff., with only fleeting references in bars 71 - 73. Further to the quotation above, Dale discusses the rationale behind the D minor region in the movement (and the work, for that matter). She comments that the A/F natural major third recurs at 'specific pitch' in both the F major and D minor regions in the

<sup>10</sup> Ibid., p.55.

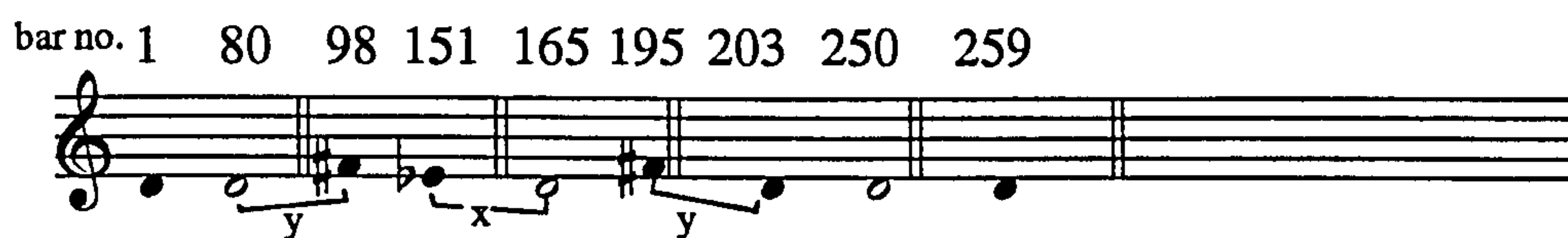


development and recapitulation. Since both tonic triads of these regions contain A and F as constituent pitches, it is obvious that this interval would occur at these points. What Dale does not state explicitly is that it is the pitch specific (C#) / A / F in bar 3 that determines the use of these regions. The presence also of the E# and D in bars 1 - 3, as well as the D# in bars 1, 2 and 4 reinforces the later usage of the D minor, F Major, and E $\flat$  minor regions in the movement, as Dale's 'neighbour-note complex' example shows.<sup>11</sup> The regions Schoenberg employs in the first movement of the Op.10 Quartet can be seen ultimately to stem from the intervals of the *Grundgestalt*. These are the chains of minor thirds, F# - D# - C - A - F#, from the initial descent of Aa1, and the major third collection, A - C# - F, developing from the ascent of the motive in bar 1 (vlins 1 & 2). Possibly the most significant influence of these factors occurs in the utterances of the theme itself. Example 5.1.16 shows the pitch centres of the thematic references to the opening two bars in the movement as a whole.

Ex. 5.1.16 (Op.10/1)



Ex. 5.1.17 (Op.10/2)



The initial minor third ascent to A minor is counterbalanced by a swing to the major third below the tonic (D minor at bar 33) and restored to F# minor in bar 35. The two F# minor occurrences (bar 1ff. and 35ff.) both include the descending major third sequence (C# - A - F / A - F - D $\flat$ ) which constitutes the second part of the main opening phrase. This

<sup>11</sup> Ibid., p. 56.

augmented triad formation is not heard again until bar 192 where it complements the final transposition of the *Grundgestalt* phrase in F minor. The incidents at bars 90 and 146 present overlapped or simultaneous versions of the *Grundgestalt* in the three regions previously used, F#, A, and D minors, creating - in both cases - an ambiguity of tonal centre. The final appearances of the *Grundgestalt* occur in imitation at the crotchet implying A, C#, and F# minors (bar 186ff.) and then Bb and F minors (bars 189 - 191), although the references are too fleeting to permit establishment of these keys. The transpositions follow one another, A - C# - F, and F# - Bb (- D), once again outlining the augmented triad. The F minor version is followed by the second half of the opening four-bar phrase (cello, bars 192 - 194) forming a quasi-dominant version of the original subject.

Use of the foreground motive as a determinant of formal and tonal structure is not limited to the first movement. The second movement's tonal scheme (example 5.1.17) demonstrates the influence of the two motivic intervals of semitone and major third (intervals x and y in the previous analysis) over the regions around D minor, the central tonality for the movement.<sup>12</sup> In the third movement the central tonality of Eb minor is retained throughout. In the final movement the major third motivic interval of the *Grundgestalt* once again provides the basis for the formal structures, as well as a conflict (and constant alternation) between the tonalities of D minor and F#. The movement opens with a series of

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<sup>12</sup> Walter Frisch's view of the tonal scheme of this movement, particularly the Trio, strikes me as rather short-sighted. His assertion that the Trio begins in D major completely disregards the initial pitch movement from F# in bar 98 (in three voices) to C# in bar 104, which I hear as a movement from tonic to dominant. This is corroborated by the harmony in the second half of bar 103 which clearly indicates the subdominant of F# (minor). Furthermore, although it is difficult to interpret some of the 'pure A-major "dominant" triads' as having a dominant function, the progression across bars 107 - 108 is clearly an interruption of a II - V cadence to the dominant of F# minor. Frisch's further assertion that the combination of the descending figure here with the rising cello line constitutes 'virtual atonality' is simply not supported by the contextual evidence. (See Frisch, *The Early Works of Arnold Schoenberg*, pp.263-265).

entries, rising in fifths from G# - f' and falling to E, which outlines the two motivic intervals x and y. In bar 9 the series of descending fifths is completed by the appearance of a' - d' in the viola followed by the cello g - c pizzicato. From bar 10, a section of oscillating sextuplets over an E pedal precedes a reiteration of the downward progression of fifths culminating in the cadence on the C - G in bar 15. The caesura here marks the end of the opening section, through which the initial G# has passed by fifths to E and eventually to C, outlining the *Grundgestalt* augmented triad. The voice entry in bar 21 coincides with the initial D minor reference, which by bar 25 has swung to the C#. The upper neighbour-note motive from theme B in the first movement provides a foreground link between D and F# (through the C# dominant) both directly, as in bars 25 - 26, and referentially, in bars 38 and 82. It also further rationalises the gradual replacement of the traditional foreground V-I cadential progression with the semitonal movement which Schoenberg employs throughout the work. The falling fifths of the opening, encompassing the chromatic whole the V-I progression, A - D in bars 20 - 21, symbolically mark the end of an era. The harmonic movement throughout the remainder of the work is generated by the conflict between the D minor tonality of the "Ich fühle Luft" theme and the F# minor dominant, on which the first vocal phrase ends. Each instance of the F# tonality is preceded by a bass semitone movement from the upper G, together with semitonal movements in other parts. This movement from the neighbour-note motive also effects the foreground resolutions/diversions of the dominant C# in bars 65 - 66 and 133 - 134. Each section of the movement is delimited by the return to the tonic, except the oscillating motive in the violins in bars 83ff, which is preceded by a movement to the dominant. Within each of the sections the D minor tonality is either implied, as in bar 59 - 60, or defined as in bars 21, 110, and 140. The last of these references (bar 140) is preceded by a



cadence to F# minor in bar 120 followed by an extended dominant pedal (in F# minor). By bar 140, this reinforcement of the F# minor tonality reinterprets the conflict of the two minor tonalities (D and F#) more as a tension, not between keys, but within F# minor itself.

Catherine Dale's work supports this view to an extent, although she regards the D minor/F# tonality conflict as the alternation of 'two harmonic progressions which initially accompany the first and second subjects'<sup>13</sup> (bars 21 and 51/3). On pp. 229-241 of *Tonality and Structure....* she discusses this alternation and its function in the structuring of the movement. She later states that

In bar 100 the first subject returns in the soprano, now clearly in the tonic key. It is harmonised here by the harmonic progression of the second subject discussed in section 5.5. The referential sonority, (z), associated with the start of the first progression, is thus replaced by an F sharp major chord which provides a tonic articulation at the point of recapitulation. This degree of consonance is not sustained however. The reversal of the first and second progressions enables Schoenberg to continue the development of the first subject material through bars 110-20, and to incorporate a larger number of dissonant sonorities into the first harmonic progression.<sup>14</sup>

Dale's commentary on the assertion of the tonic key from bar 120 also reinforces my final comment regarding the subsuming of D minor (as a tonality) by the tonic F#.<sup>15</sup>

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<sup>13</sup> Dale, *Tonality and Structure....*,p.229.

<sup>14</sup> Ibid., p.241.

<sup>15</sup> Ibid., p.242.

## Op.30 Quartet

The preceding chapters and subsections related to the Op.30 Quartet have demonstrated the motivic unity of the thematic material in the four movements, and shown how the initial intervals of minor third, fifth, and semitone are employed to structure the opening section of the work. The following considers the pitch structural processes in the work as a whole.

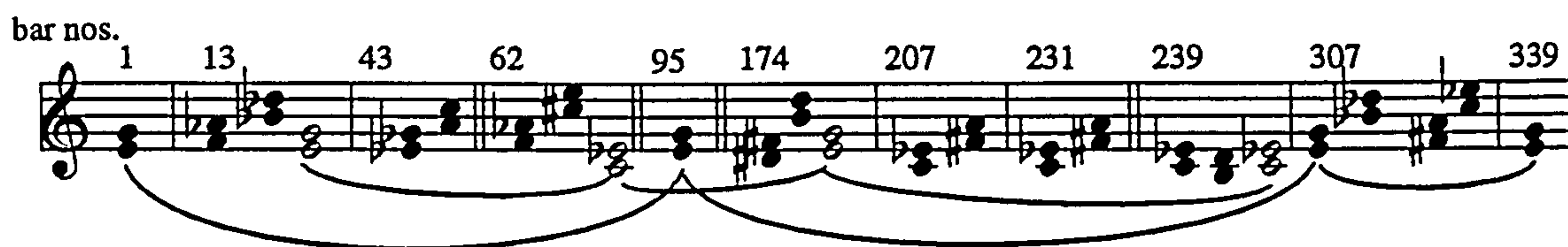
The two main themes of the first movement (bars 5 - 12 and bars 62 - 68) occur at P0 and I5 respectively. The appearance of the second theme at this level reflects a large scale unfolding of the boundary interval of *Urmotiv A*, i.c.5, as well as the initial unfolding of the opening theme and continuation (bars 1 - 18). The accompaniment to the second theme is also determined by intervallic relationships in the *Grundgestalt*. The pairs of notes (dyads) in the theme form aggregates with the accompanying pair of five-note motives. In order for this to occur, Schoenberg chooses row forms which contain these dyads as invariant segments as well as creating five-note groups with boundary intervals reflecting the melodic intervals (Ex. 5.1.18).

Ex. 5.1.18 (Op.30/1)

The musical score for Op. 30/1, Example 5.1.18, shows measures 62-68. The score is written for three staves: Treble, Middle, and Bass. The key signature is one flat (B-flat). The time signature is 3/4. The score includes various intervallic annotations: a '3' above the first measure, a '6' above the second measure, a '5' above the third measure, and a '4' below the fourth measure. The score also includes a '6' below the first measure, a '5' below the second measure, and a '5' below the third measure. The score is annotated with various intervallic relationships, including 3, 6, 5, and 4.

The return of the second theme in bar 174 occurs at P0. This, together with the return of the opening theme in bars 239ff. at the same pitch as before, alludes to the traditional tonic-dominant presentations of first and second theme, recapitulated (albeit in reverse order) in the 'tonic'. Or so it may seem. Schoenberg does not, however, present the thematic reference to the opening theme in bar 239 at the P0 pitch level, but at I5. This is possible due to the relationship between specific trichords that make up *Urmotiv* B in the two row forms. Schoenberg creates a structure here that moves away from and returns periodically to the prime form of the opening, both thematically and tonally (in the broadest sense of the word) as well as moving to a pitch area related to the original one through the intervallic properties of the *Grundgestalt*, as example 5.1.19 indicates. In this example, the filled notes demonstrate the instances of the A *Urmotiv* at structural points in the movement; the clear notes represent instances of the A *Urmotiv* as the 'cantabile' : first and second themes (initially bar 13, cello, and bar 62, vln 1). In all cases, the first two notes of the motive are presented.

Ex. 5.1.19 (Op.30/1)



In all places except bars 95ff. and 239ff. the pairs of thirds themselves occur in pairs. Schoenberg's choice of minor third transpositions of the *Urmotiv* in the first 95 bars demonstrates his desire to create a unified structural unit, moving away from and returning to the original pair. The inversional balance of the A $\flat$ -F and G $\flat$ -E $\flat$  around the E-G minor third is not directly brought about by row transposition to these levels, but by the invariance of



*Urmotivic* pitches from one row form to another. The rows therefore become the variables in an invariant structure brought about by the relationships between *Urmotiv* and motive-forms, and between the minor thirds that initiate each sequence of events.

The variation structure of the second movement was discussed earlier in this study, in relation to the thematic and motivic progressions. Schoenberg chooses P0 for the initial presentation of thematic material here, as he does in the other three movements. The initial 'harmonic' presentation of the P0 (and RI5) outlines a progression from the initial G-E third to C-E $\flat$  (+G) at the end of bar 9. The subsequent transpositions of theme A continue through a pattern of fourths, reflecting the *Urmotiv* A boundary interval, and the 'middleground' movement of the g' - c'' in bar 1 (vln1) (Ex. 5.1.20).

Ex. 5.1.20 (Op.30/2)

bar 1 (vln 1)

bar nos. 1 11 21 32 41 44 61 71 75 85 98 105

theme: A B A B A D B A B D A B A A

finishing notes of themes I6 P5 I5 P0

The third appearance of theme A (bars 41ff.) accompanies the introduction of theme D (cello, bar 44), beginning with the minor third, B $\flat$ -D $\flat$ , which anticipates the closure of the theme at the same pitch(es) in bar 50 (viola and cello). The inversion of theme D that appears in bar 75 (beginning A $\flat$ -F) creates the intervallic relationship of a fourth with the original - the same interval that structures the appearances of theme A. A pattern of minor thirds structures the appearances of theme B, reflecting the initial *Urmotivic* interval (Ex. 5.1.20). The minor third also influences the final transposition

of theme A, after its return to G-E in bars 61 and 85. The four row forms Schoenberg uses between bars 98 and 105 are I<sub>6</sub>, P<sub>5</sub>, I<sub>5</sub>, and P<sub>0</sub>. Analysis of the initial thirds of these rows demonstrates the similarity of relationship between pairs, together with the interconnecting pitch C, and shows the indirect relationship between the theme at bar 98 and bars 105ff. (Ex. 5.1.20).

Example 5.1.21 shows the entries of themes A - E in the third movement of the Op.30 Quartet.

Ex. 5.1.21 (Op.30/3)

The musical notation for Example 5.1.21 (Op.30/3) consists of four staves. The top staff is a single melodic line with notes and rests, with labels below each note: theme A, A, B, C, A, B, C, A, A, D, E, A, A, C (C), C, A, B, A, A. The three staves below are labeled A, B, and C on the left. Staff A shows a single note G. Staff B shows a single note C. Staff C shows a single note G. The labels A, B, and C are placed to the left of their respective staves.

The first four appearances of theme A in the first section occur alternately on G and C, once again reflecting the G - C *Urmotiv* interval. This succession of entries is mirrored in the A' section of the ternary movement, although the functions of the four entries are different: the first entry in bar 128 acts as a transition to the second entry which heralds the A' section proper (bars 132ff.). The second and third entries then fulfil the same function of antecedent and consequent, as do the first and second entries of the opening section. The two entries of A that occur on the augmented triad A-F-D $\flat$ , bars 60/4 - 61/1 (vln 1) and 155/3 - 156/1 (cello), fulfil a similar function of closure to that of their predecessor in bars 10/4 - 11/1 (viola), but differ from

each other due to their respective relationships with the material that succeeds them. The first of these prepares the way for the B section material. The phrase from the upbeat to bar 61 ends on bar 64/1 on C. This pitch is associated with the viola C in bar 68 at the end of that phrase, which is further displaced by an octave in the cello in the next bar, underpinning the initial sonority of the B section. The augmented triad also influences the movement in the bass between bars 64 and 67. The most significant connection between this A section entry and the beginning of the B section is the opening sonority of bar 69 C<sup>#</sup>-G<sup>#</sup>-E-C, which is taken from the sonority on the first beat of bar 61 namely, D<sup>b</sup>-A<sup>b</sup>-E-C. The association between the C and D<sup>b</sup> initiated in bar 61 and fulfilled in bar 69 is paralleled in the final bar, where the bass movement from C to D<sup>b</sup> accompanies harmonies associated with bars 68 and 65 respectively. The final chord also sums up the closing section based on theme C, being constructed from the sonorities associated with the first occurrence of theme C in bar 27 (Ex. 5.1.22) The vln 1 melodic phrase, beginning in bar 60/4, outlines the A-F-D<sup>b</sup>, which closes (in bar 64) on c.

Ex. 5.1.22 (Op.30/3)

The musical score for Ex. 5.1.22 (Op.30/3) is presented in two staves, treble and bass. The score is divided into measures corresponding to the following annotations:

- bar 61 (initial sonority):** Treble staff has a half note D<sup>b</sup> and a half note E; Bass staff has a half note C and a half note A<sup>b</sup>.
- bar 69 (Theme D):** Treble staff has a half note C<sup>#</sup> and a half note G<sup>#</sup>; Bass staff has a half note E and a half note C.
- bar 65:** Treble staff has a half note D<sup>b</sup> and a half note E; Bass staff has a half note C and a half note A<sup>b</sup>.
- bar 68:** Treble staff has a half note D<sup>b</sup> and a half note E; Bass staff has a half note C and a half note A<sup>b</sup>.
- bar 183 (initial chord):** Treble staff has a half note D<sup>b</sup> and a half note E; Bass staff has a half note C and a half note A<sup>b</sup>.
- bar 183 (final chord):** Treble staff has a half note D<sup>b</sup> and a half note E; Bass staff has a half note C and a half note A<sup>b</sup>.
- bar 27 (Theme C):** Treble staff has a half note D<sup>b</sup> and a half note E; Bass staff has a half note C and a half note A<sup>b</sup>.

Arrows indicate harmonic relationships: from bar 61 to bar 69, from bar 65 to bar 68, and from bar 183 to bar 27.

The derivations and progressions of the fourth movement themes were demonstrated in subsection 4.2.3. These showed how the movement was constructed from themes of previous movements, and to that extent, how the



movement is therefore integrated into the work as a whole. Within the movement itself however, there are a number of structural devices derived from the foreground motives of the opening statement.

The initial semitone in the vln 1 is also reflected in the vln 2 voice, on  $g-a\flat$ . This semitonal movement is pervasive throughout the entire movement, and in this sense the foreground motive of the initial semitone could be said to be structurally significant. However, such ubiquity greatly reduces this significance, so any attempt at demonstrating this would be unproductive. More significant are the actual pitches involved. The installation of the second thematic construct in bar 14 reflects this semitone movement. In bars 3 and 4, two augmented triads are outlined (Ex. 5.1.23),  $A\flat-C-E$  and  $B-G-E\flat$ .

Ex. 5.1.23 (Op.30/4)



The initial and final pitches of the *Hauptstimme* phrases from bar 14 onwards outline the *Urmotiv* minor third. However, the initial pitches of the two cello entries, G and C, begins an unfolding of the second augmented triad. In bar 18 the final pitches of the cello,  $A\flat-D$ , are taken up by vln 1. The initial notes of the next two entries are both  $A\flat$ ; these climb respectively to E and C reflecting the initial augmented triad  $A\flat-C-E$ . In the following bars (22 - 32) the upper melodic line weaves between the upper and lower extremes (i.e. the boundary interval) of C and E, thereby extending the unfolding of the  $A\flat-C-E$  triad. A number of other significant pitch correspondences result from the augmented triad figuration.

The close of the first section is marked by an ascent in the vln 1 from C# to F (bars 12 -13). This consolidates the bass line fifths movement from D $\flat$  to F in bars 5 - 8. A further association with this pitch set occurs in bars 33 - 36 where the minims F-A (vln 1 bars 33 - 34) are answered by C#-F in the viola (bar 36). A similar pattern occurs in the thematically corresponding bars (103 - 145). In bars 103ff. the same sequence of fifths occurs, culminating with F/C in bar 106 (cello). The end of the section (bars 117 - 118) is punctuated by a descent from F - D $\flat$  in the cello, mirroring the C#-F swing in bars 12 - 13. The same two specific pitches are employed at the third structural point corresponding to bars 33ff. (Ex. 5.1.24).

Ex. 5.1.24 (Op.30/4)

The musical notation consists of three staves, each with a bass clef. The first staff contains the following annotations: 'bar 1 (cello)' above the first measure, 'bars 5 - 8 (cello)' above the next four measures, 'bar 12 (vln 1)' above the measure starting with a double bar line, 'bar 33 (vln 1)' above the measure starting with another double bar line, and 'bar 36 (vla)' above the final measure. The second staff contains 'bar 33 (cello)' above the first measure and 'bar 41 46' above the final measure. The third staff contains 'bar 99 (vla)' above the first measure, 'bar 103 (vla)' above the second measure, 'bars 104 - 106 (cello)' above the next three measures, 'bar 117 (cello)' above the measure starting with a double bar line, and 'bar 144 (cello)' above the final measure. The notation includes various note values, accidentals, and bar lines.

At bar 62 the two *Hauptstimmen* present theme E. The minims here form part of the A $\flat$ -C-E augmented triad, which is complemented by the viola E in bar 64. Similarly in bar 64 the motive-form presents the pitches G $\flat$  and B $\flat$  as minims, complemented by the high d" in bar 66. The entire section to bar 77 is constructed in this manner, until all four transpositions of the augmented triad have been exhausted. The re-appearance of theme E in bars 191 - 192 with minim G# and E in all four voices fulfils the unfolding of the A $\flat$ -C-E triad initiated by the A $\flat$ -C minim dyad in bar 62. Schoenberg presents, in this *Rondo* movement, a set of themes that are not only integrated by their

motivic derivation from the common source of the *Grundgestalt* but are also structured and controlled by the foreground content of the *Rondo* theme itself.

## Op.37 Quartet

The large-scale structural significance of the *Grundgestalt* intervals of the Op.37 Quartet has received discussion previous to this study.<sup>16</sup> Earlier in this chapter, the construction of the *Grundgestalt* of the work was shown to unfold a series of ascending minor thirds, which had significant bearing on the opening sequence of events. Example 5.1.25 shows the initial pitch-classes of the Inversional Hexachordal Combinatorial (hereinafter referred to as 'IHC') pairs that present the four themes of the first movement. The square brackets indicate the row form of the IHC pair used in the presentation of the theme itself. The thematic 'levels' underneath the example denote the collections of themes appearing in the same chain of minor thirds.

### Ex. 5.1.25 (Op.37/1)

bar nos. 1      42      66      95      116      165      188      207      239      258      265      274

The image shows a musical score for the song 'The Rose Tree'. The melody is written on a single staff in treble clef. The notes are: C4 (quarter), E4 (quarter), G4 (quarter), A4 (quarter), B4 (quarter), A4 (quarter), G4 (quarter), E4 (quarter), C4 (half). The notes are grouped into measures: measures 1-4 (C4, E4, G4, A4), measures 5-8 (B4, A4, G4, E4), measures 9-12 (C4, B4, A4, G4), measures 13-16 (E4, D4, C4, B4), measures 17-20 (A4, G4, F4, E4), measures 21-24 (D4, C4, B4, A4), measures 25-28 (G4, F4, E4, D4), measures 29-32 (C4, B4, A4, G4), measures 33-36 (F4, E4, D4, C4), measures 37-40 (B4, A4, G4, F4), measures 41-44 (E4, D4, C4, B4), measures 45-48 (A4, G4, F4, E4), measures 49-52 (D4, C4, B4, A4), measures 53-56 (G4, F4, E4, D4), measures 57-60 (C4, B4, A4, G4). The chord annotations are: A (measures 1-4), B (measures 5-8), C (measures 9-12), D (measures 13-16), A (measures 17-20), D (measures 21-24), C (measures 25-28), D+B (measures 29-32), A (measures 33-36), C (measures 37-40), A (measures 41-44), D (measures 45-48), C (measures 49-52), A (measures 53-56), D (measures 57-60).

It can be seen that successive statements of theme A are mostly controlled by an unfolding of the minor third sequence of the *Grundgestalt*. The

<sup>16</sup> W. Lake, 'Structural Functions of Segmental Interval-Class 1 Dyads in Schoenberg's Fourth Quartet, First Movement', *In Theory Only*, 8 (1984), pp.21-29.





C, and P4 presents F#-F). Thirdly, Lake omits to point out that the A theme statement in the 'coda' (bars 239ff.) also contains all five of his ic1 dyads - a trivial fact, considering that Schoenberg uses P0/I5 which automatically contains all five segmental dyads, yet not so trivial when one considers that the statement also presents the two non-contiguous dyads (F-F# and B-C from bar 95) as a contiguous tetrad (bars 246 - 247, cello). If Lake's dyads m,n,p,q, and r, (which are D-C#, A-Bb, Eb-E, Ab-G, G-F# respectively) are adjusted to include the above non-contiguous dyads, x (F-F#) and y (C-B), then "r" can be omitted from the set of dyads m,n,p,q,x, and y. Re-writing Lake's 'thematic organization' table scarcely modifies his original, save for the quantity of dyads existing in the development part of the work (exx. 5.1.27&28).

Ex. 5.1.27 (Op.37/1)

Lake's Original Table		
Bar	Theme	Dyads
1	A	m,n,p,q,r
66	B	m
95	A	n,p
116	D	n,p
165	A	m,n,p,q
188	C	n,p, r
189	B	m, q

Ex. 5.1.28 (Op.37/1)

Lake re-written

Bar	Theme	Dyads
1	A	m,n,p,q,x,y
42	B	n,p, y
66	C	m
95	A	n,p, x,y
116	D	n,p, x,y
165	A	m,n,p,q
188	D	n,p, y
189	C&B	m, q,x
239	A	m,n,p,q,x,y
258	B	m,n,p,q,x,y

Lake asserts that bars 95 and 116 'hold invariant only two of the "home" dyads' and are therefore *more distant* from Theme A than the Recapitulation which 'marks the return of four of the five "home" dyads'.<sup>17</sup> In my re-written table the quantity of dyads in bars 95 and 116 is now similar to the number existing in the so-called Recapitulation at bar 165, which undermines Lake's theory.

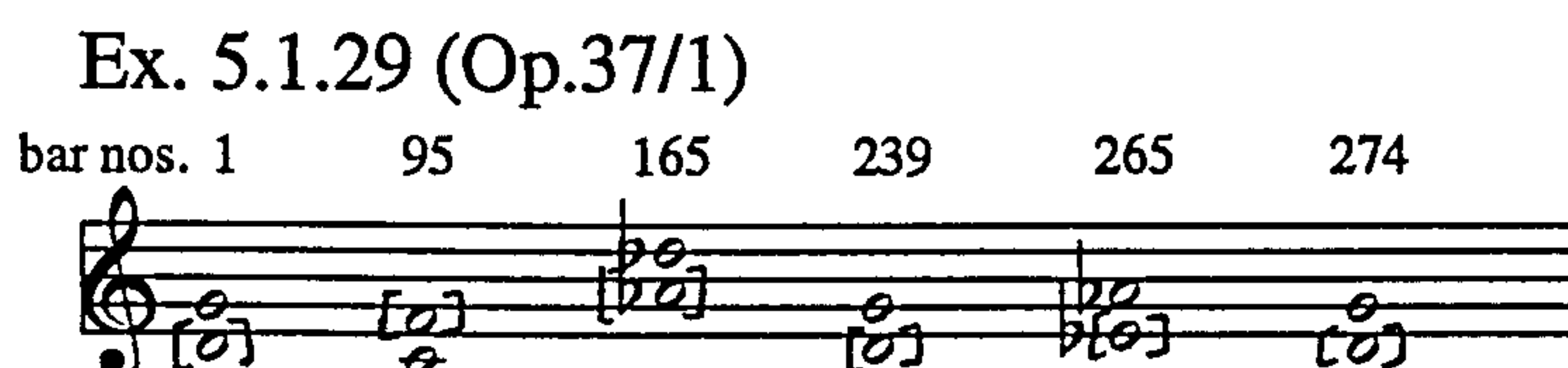
Lake readily accepts the notion of sonata-allegro form (as have others in the past), and builds his theory around this. However, he does not take into account the remaining thematic statements in the movement, namely the theme at bars 42ff. which is heard again in bar 207 against a double statement of Lake's theme C (my theme D), the three 'coda' statements of theme A (bars 239, 265 and 274) and the statement of theme B (my theme C,

<sup>17</sup> Ibid., p.27.



bar 258ff.). Whilst I am not questioning Lake's reasoning that choice of row transposition is dependent upon ic1 dyadic invariance, I remain sceptical of his view that it is used to support the sonata-allegro notion. My proposed alternative, which incorporates the 'coda' statements, may contribute to a clearer perception of Schoenberg's intentions, even if it does not solve the formal categorisation problem.

In example 5.1.25, IHC sets corresponding to the thematic statements were represented by a series of fourths. Example 5.1.29 isolates the theme A statements.



It can be seen that the unfolding minor third sequence D-F-A $\flat$  is not completed by a statement beginning on B. Further to this, there exists an anomalous statement on E $\flat$  in the final section of the movement (vln 1, bar 265ff.). Returning to Ex. 5.1.25, the long-range pitch association between A themes is complemented by a statement on B, but from theme D in bar 188. The relationship between this theme D statement and the previous A theme (bar 95) is further reinforced by the fact that they share four identical dyads. More importantly, the D theme opens and closes on the B-C and F-F $\sharp$  dyads singled out by duration in the bar 95 A theme. The D theme in turn associates with the P0 statements of theme A in bars 239 and 274, closing the minor third sequence. A similar minor third sequence, initiated by the second theme of the movement, theme B (bar 42ff.), creates a long-range association between themes B, C, D and the E $\flat$  version of theme A in bar 265. The initial dyad of theme B, A-B $\flat$ , is in many ways an extraction of the

*Grundgestalt* of bar 2. The dyad appears at the close of theme C (in bar 70) the opening of theme D in bar 122. The common dyad that links the remaining statements in this group, G#/Ab-G, is emphasised initially and subsequently by temporal and registral means (in theme D bar 124, in theme C bars 190 and 259, and in theme A bars 268 - 269). One final point regarding the structural use of the dyads concerns the thematic statements taken as a whole. Example 5.1.30 shows the themes in chronological order together with the dyads each statement presents. If the initial dyad of each statement is circled a pattern emerges that demonstrates Schoenberg's systematic employment of the dyads across the movement as a whole. The six dyads are employed in turn, and as the sixth is reached, the first is once again employed to initiate theme C, which did not form part of the opening sequence. This opening dyad, D-C#, is then used in all the subsequent thematic statements.

Ex. 5.1.30

Bar	Theme	Dyads					
1	A	(D-C#)	A-Bb	Eb-E	Ab-G	(F-F#	C-B)
42	B		(A-Bb)	Eb-E			B-C
66	C	D-C#	A-Bb				
95	A		Bb-A	E-Eb		(F-F#	B-C
116	D		Bb-A	(E-Eb)		F-F#	B-C
165	A	D-C#	A-Bb	Eb-E	(Ab-G)		
188	D		Bb-A	E-Eb		F-F#	(B-C)
189	B&C	(D-C#)			G-Ab	F-F#	C-B
239	A	(D-C#)	A-Bb	E-Eb	Ab-G	F-F#	C-B
258	C	(C#-D)	Bb-A	E-Eb	G-Ab	F-F#	C-B
265	A				Ab-G		
274	A	(D-C#)	A-Bb	Eb-E	Ab-G	(F-F#	C-B)

If formal conclusions can be drawn from the above propositions, they do not support the traditional sonata-allegro structure. It is perhaps most significant formally that in bars 188 - 189 the structural frameworks outlined above (the ascending minor third sequence, the descending minor third sequence, and the systematic employment of the six dyads) all coincide: the dyad sequence has reached a peak and the two minor third sequences cross each other. It would appear then that at least two levels of structural thought operate in the movement. Firstly, the fulfilment of the dyadic cycle, which occurs at bar 188, where for the first time all six dyads are re-presented. Secondly, the unfolding sequences of minor thirds which cross at this point and which are not completed until the 'coda' statements are heard. Without this in mind, any attempt to draw parallels with the traditional sonata-allegro structure presents an incomplete picture. The beginning of the 'development' section at bar 95 is a reasonable enough proposition, since it marks the point where the ascending cycle of thirds begins (although this does not take into account the unfolding dyads). Thematically, the 'recapitulation' could begin at one of two places, either bar 165, or bar 239. Bar 239 would, as fulfilment of the ascending cycle of minor thirds and re-presentation of the six dyads, satisfy the criteria of 'arrival' implied by both structural systems. It is hoped that this, and the above propositions, confirm why the 'recapitulation' cannot therefore be said to begin at bar 165. This, however, leaves the vast majority of the movement as the 'development'. The structural ambiguity of the 'development'/'recapitulation' is further reinforced by the thematic statements at bar 188ff.. The statement of theme C occurs at the pitch specific level of its later and final statement in bar 258, anticipating the 'recapitulation' pitch, and thereby implying 'recapitulation' at bar 188.

It is perhaps too easy to endorse the simplistic thematic pigeon-holing that Lake and others have ascribed to the first movement of the Op.37 Quartet.



The structure Schoenberg creates here, however, involves a more complex strategy than at first meets the eye. The interaction of the structural devices drawn from the construction of the *Grundgestalt*, and of the expectations and experiences of the listener (and the analyst) through the various thematic statements, simultaneously challenges the notional prototype, integrating motivic, thematic, serial, and formal procedures into a coherent whole.

In her book *Arnold Schoenberg: notes, sets, forms*, Silvina Milstein discusses (with specific reference to the second movement of the Op.37 Quartet) the manner in which Schoenberg replaces the formal associative function formerly provided by tonality with the associations available through set invariants.

In this context thematic continuity, procedures for motivic transformation and liquidation, and the formal articulation of exposition, elaboration, and recapitulation are not merely textural events but are intimately intertwined with the particular structure of the twelve-tone set and systematic criteria for association. The set engenders the motif, which progresses according to principles of developmental variation, having no longer tonality but rather the set as its absolute boundary.<sup>18</sup>

The above statement reflects and supports both Milstein's analysis of the second movement of the Op.37 Quartet, and my own re-interpretation of Lake's analysis of the first movement. Milstein states that 'the thematic statements marking the principal sections of the movement are tightly constructed according to principles of set association'.<sup>19</sup> Her analysis shows the relationship between the antecedent and consequent of the opening theme to be created by the presence of the trichord D-A-B $\flat$  which begins

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<sup>18</sup> S. Milstein, *Arnold Schoenberg: notes, sets, forms*, p.31.

<sup>19</sup> Ibid., p.30.

both phrases. Likewise, the relationship between the theme at bar 324ff. and its repeat in bar 353ff. demonstrates an invariant pitch construction linking the two sets. The foreground D-A-B $\flat$  will be seen in the following analysis to determine the local and large-scale structure of the movement.

The initial ascending fifth, d-a of the opening motive is reflected in the boundary interval of a fifth from the same pitch d to G at the end of the motive (viola, bars 285 - 286/1). This d-G descent is in turn reflected in the closure of the vln 2 phrase (bar 286/3 - 287/1). The initial vln 1 descent from D $\flat$ -A $\flat$  across the first phrase is similarly influenced by the *Hauptstimme* motive. The A-B $\flat$  semitone of the *Hauptstimme* motive is reflected in the simultaneous opening semitones D $\flat$ -C (vln 1) and F-F $\sharp$  (cello). The viola further associates the *Hauptstimme* with the vln 1 descent by reflecting the D $\flat$ -C in the initial notes of the trichords which complete the first phrase. In bars 290 - 291, the close of the antecedent is effected by a return of the opening *Hauptstimme* motive. This time, however, the outline descent reflects the semitone interval (B-B $\flat$ ). The two *Hauptstimme* motives based around a fifth and a semitone are associated throughout the movement with theme A, and provide a structure around which the remaining thematic material is developed. The pitch structure table overleaf (Ex. 5.1.31) maps out the various statements of the thematic material. Noteheads beamed together indicate the boundary interval of the motive-form. Double beamed noteheads (mostly within these boundaries) indicate the pitches of the motive-form. Almost all pitches are from *Hauptstimmen*. Exceptions to this are enclosed by [ ]. Intervals are generally shown by reduction to within an octave; pitches are transposed to facilitate comparisons. Contour is retained in all cases.

Ex. 5.1.31 (Op.37/2)

285 290 292 298 299 306 309 324 346

353 373 374 378 380-84 385 386 388 390 391-3 393-5

395 403 406 408 412 413 415-28 430

(430) 433 438 442 449 454 463 476

(476) 477 481 484 486 488 489 491 493-4 495

498 509-517 518 524 525 527 528 529 531 532

535 552 558 562 580 587 590 592 593 594 596

cadential  
sonority

(liquidated)

Ex. 5.1.32 (Op. 37/2)

The following observations are not intended to be exhaustive but to demonstrate a number of features inherent in the structuring of the movement. An immediate relationship can be seen between the thematic statement in bar 292 (vln 1) and the original (viola, bar 285). The initial pitches of the motive-form in bar 292, d'-a'-b $\flat$ ', associate directly with the opening motive. The initial note d' moves towards d $\flat$ ', forming a boundary interval of ic1. This reflects the boundary interval created by the modified motive-form in bars 290 - 291 (viola). The motive-form in bars 292 - 293



can therefore be seen as an amalgamation of the original and modified motive-forms. Theme B in bar 306 associates with the opening motive by the inversion of the D-G boundary interval. In the first main section of the movement the A theme undergoes several transpositions. Example 5.1.32 shows how the statements are linked by the interval of the fifth to the original. Theme A is finally fragmented in bars 412ff., where the residue C#-D-A reflects the initial intervals as well as associating pitch-class specifically with the *Grundgestalt*. The use of this pitch-class collection in the process of liquidation associates also with a similar point in bar 323 immediately before the installation of theme C. The C#-D-A collection also provides a link between the two main sections of the ternary form, by its re-appearance as the initial trichord of theme F. The interval collection C#-D-A, which is identical to the opening D-A-B $\flat$ , is also used at other structural points in the movement. For example, the vertical sonority in bar 291 at the end of the antecedent phrase contains F-B $\flat$ -A, which forms a long-range association with the cadential sonority in bar 352. This association is reinforced by the preceding part movement in both phrases (Ex. 5.1.33). In bars 373 - 374, the bass descent B $\flat$ -F and the initial note of the following theme A in the viola form the collection B $\flat$ -F-A. This is balanced in the following two bars by a bass ascent C#-F#, which, combined with the initial D of the following thematic statement forms a further collection at a minor third distance which in turn reflects the relationship between the thematic statements of A in bars 374 and 385.

Ex. 5.1.33 (Op.37/2)

The following account of the pitch relationships across the third movement involves reference to two writers, whose perceptions are drawn from what could be described as 'opposing camps'.<sup>20</sup> Since Silvina Milstein writes with prior knowledge of the Babbitt 'Set Structure' article, it is through discussion of her analysis of the third movement that observations will be made.

Milstein's chapter 'Tonal thought as a compositional determinant' starts by drawing comparisons between the third movement of the Op.37 Quartet and the slow movement of the *First Rasumovsky Quartet* by Beethoven. Whilst the parallels she draws are perceptive, they are of less interest to the present study than the actual pitch relationships in the Op.37 Quartet. Milstein's brief references to Babbitt at the beginning and end of her chapter outline the first important concern of the present study, namely the choice of transposition at bar 623.

Milstein neither accepts nor rejects Babbitt's proposition of the unfolding minor third sequence being the determinant of the structure of the first subject, nor does she provide a convincing alternative. She does, however, uphold that this consideration alone is insufficient to explain the pitch processes in the movement. There are several reasons why I think Babbitt's proposition demonstrates the prime motivation behind the row transpositions here. Firstly, the final note of the opening recitative, A, is followed by A $\flat$  which instigates the continuation. The consequent semitone A-G $\sharp$  opening of bar 623 is anticipated, then, by the exchange across the opening phrases. The semitone dyad A-A $\flat$ /G $\sharp$  in bar 618 also initiates a series of semitone dyads through the following phrase: the C-B oscillations of the viola and the D $\sharp$ -E dotted figure of vln 1, followed by the G $\flat$ -F repetitions in bar 621 gradually unfold the same sequence of minor thirds, anticipating the broader structural unfolding. Secondly, the A-G $\sharp$  dyad, which is physically and

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<sup>20</sup> S. Milstein, op. cit., pp.98-118; M. Babbitt, 'Set Structure...'

metaphorically central to Milstein's theory, is further emphasised in this first section by registral and temporal placement. The initial use of the dyad to link the first two phrases performs a similar function in bar 625, where the vln 1 phrase ends on A and links to the cadenza flourishes beginning on g<sup>#</sup>. The high registral placement of the a<sup>''</sup> - g<sup>#</sup> in the same bar (vln 2) associates with the close of the section in bar 629. It is also significant that the A-G<sup>#</sup> dyad appears segmentally only in the two IHC pairs used at these two points, namely P7/I0 and P1/I6. Thirdly, the emphasis Schoenberg lays on the G<sup>b</sup>-F dyad in the recitative by repetition and duration sets up a long-range association, not only with its IHC partner, but also with the only other IHC pair who share the dyad as a segment of their row forms, P4/I9. Each of the segmental dyad pairs, A-G<sup>#</sup>/E<sup>b</sup>-D, and C-B/F<sup>#</sup>-F, is presented not only with the IHC sets with which it is associated, but also occur with the statements of the other set. For example, the B-C dyad in bar 623 (vln 2), which is not a segmental dyad in the IHC set employed, is partitioned from the I0 row form. This partitioning also serves to link the previous B-C (across bars 622 and 623 vln 1) by registral and temporal means. Likewise the D-E<sup>b</sup> dyad which opens bars 623 and 624 is reflected in bars 626 - 627 (vln 1) by the 'ornamented' exchange between the D and E<sup>b</sup>. A close relationship then exists between areas a tritone apart, by virtue of their common dyad pairs whose use both structures and integrates the opening sequence.

The statements of the second theme (announced in bar 630ff.) are also motivated by the unfolding of the minor third sequence. The initial statement begins on e<sup>#</sup>-f<sup>#</sup> in vln 1 and rises to a<sup>b</sup>, the highest registral pitch of the phrase, which is reiterated in the continuation. The bass line passes from its initial G<sup>#</sup>-A dyad through B-C to F<sup>#</sup>-F, the initial and final notes reflecting a reversion of the movement in the *Hauptstimme*. The inverted statement of the theme in bar 638 on A<sup>b</sup>, accompanied by the viola entry on



F further reflects this opening F-A $\flat$ . A long-range association between the two *Hauptstimme* entries at bars 638 and 645 can be seen by their common initial semitone dyad, A $\flat$ -G. The association is reinforced by the presence of the F-C fifth in the viola (bar 638) and cello (bar 645). The passage leading to the final thematic statement of the section (vln 1 at 655 beginning on b) features D and F prominently as melodic notes and in bar 654 as a vertical sonority, forming further minor third connections between the A $\flat$  of bar 645 and the B of bar 655. The B-C dyad here is prolonged in bars 659 - 661 (vln 1) and associates with the cadential dyad in vln 2 (bars 662 - 663).

The restatement of the opening recitative at bar 664 employs the combinatorial I -form of the original. The structural implications of this have been discussed by both Milstein and Babbitt.<sup>21</sup> The temporal positions of the invariant dyads C-B and F-F $\sharp$ /G $\flat$  in this 'isorhythmic' restatement (as Babbitt puts it) are reversed, calling to mind the similar situation created by Schoenberg in the first movement (between the original theme at bar 1 and a restatement at bar 165). The restatement of the second theme 'in the home hexachordal area' occurs at bar 679.

In the section preceding this, Schoenberg creates a quasi-fugato set of entries which culminate in bars 678 and 679 with a reference to the closing motive of the opening theme in bar 622, but this time ending on E $\flat$ . The E $\flat$  features prominently in the preceding bars, firstly as the registral extreme of the recitative restatement in bar 666, then singled out in the closing phrase before the fugato, both registrally as the highest note and temporally as the longest. The E $\flat$  reached in bar 679 is immediately followed by a statement of the second theme on c''' (vln 1) and a further statement on e $\sharp$ /f (vln 2). This relationship reflects the corresponding moment in the first section at bar 623. The two entries in bar 679 stating the C-B and F-F $\sharp$  dyads are

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<sup>21</sup> See Milstein, op. cit., p.113ff.; Babbitt, op. cit., pp.145-147.

consolidated by the *Nebenstimme* in the cello in the following bar, whose entry begins on one of the dyads and closes the phrase on the other. Further statements of the second theme at bars 686 and 692 occur on E $\flat$  and A, continuing the unfolding of the minor third 'diminished seventh' sequence.

Milstein's account of the role of the motive E-A-A $\flat$ -D $\flat$  ('pairs of fifths a major third apart'<sup>22</sup>) in the movement discusses the interaction between set association and the manner in which the motive is developed. It does not supply a comprehensive account of the organisation of thematic material in the movement, but does contribute to an overall view of the pitch organisation within it.<sup>23</sup> One other motive contributes to the general integration of the thematic statements in the work. The opening C-B-G trichord appears as an isolated motive in several places throughout the movement. Firstly, as a harmonic sonority in bar 619, then at bar 636 as an ostinato figure. Both these statements occur at the pitch level of the original. The restatement of the recitative theme in bar 664 contains the motive once again at pitch specific level (in retrograde). Further references to it are made in bars 670, 700 and 703 where its use is predominantly cadential. Of more significance is its transposition in bar 638 (viola) to C $\sharp$ -D-F $\sharp$  which accompanies a thematic statement on A $\flat$ . The same motive appears in bar 645 supporting the second A $\flat$  statement, which is itself a transposition of the motive. Simultaneous entries of the motive appear in bar 655, supporting the second B-theme statement, on B-C-E and G $\flat$ -F-C $\sharp$ . In bar 681 the motive re-appears, this time transposed to A-B $\flat$ -D. All of these occurrences support thematic statements a fourth above (or below), reflecting the boundary interval of the motive and integrating the thematic statements through the long-range relationship created by the motive itself.

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<sup>22</sup> Milstein, op. cit., p.108

<sup>23</sup> Ibid., pp.108-111.

The pitch organisation of the fourth and final movement of the Op.37 Quartet develops the motivic ideas outlined by Milstein in the third movement. The most immediate evidence is the opening vertical sonority of the fourth movement, whose pitches are drawn from the initial dyad of P0 and the final dyad of its IHC partner I5. The second statement of this theme (theme A) in bar 726 opens with the sonority G G# F# B, whose pitches are drawn in a similar fashion from I5 and P0 (Ex. 5.1.34).

Ex. 5.1.34 (op.37/4)

The image displays musical notation for Example 5.1.34 from Op. 37/4. The top staff is a single melodic line with notes labeled P0 and I5. The bottom staff shows two vertical sonorities: bar 704 and bar 726, with notes labeled y, a, #, b, and x. A label '(initial vertical sonorities)' is placed between the two bars.

The pitch structure chart in example 5.1.35 maps out the significant pitches of the numerous thematic statements of the movement. Beamed noteheads again show boundary intervals. Double-beamed noteheads show motivic units (generally) within the boundary intervals. All pitches are selected from the *Hauptstimmen*. Some pitches have been subject to octave transference in order to permit clarity of reading on one stave; where this occurs, contour and relative distance between motivic pitches is retained.



Ex. 5.1.35 (Op.37/4)

The musical score is presented in seven systems, each containing a single staff. The notation includes various musical symbols such as notes, rests, and accidentals. Above the staff, measure numbers are indicated: 704, 706, 707, 710, 713, 714, 720, 724, 726, 731, 733, 740, 743, 746, 757, 767, 773, 780, 783, 786, 787, 788, 793, 797, 799, 804, 805, 807, 814, 815 (cello), 819, 827, 831, (831), 841, 843, 846, 849, 852, 854, 860, 862, 863, 879-80, 883, 889, 898, 909, 913, 924, 934-5. Below the staff, letters A, B, C, D, E, F, and (A(b)) are used to denote specific pitch connections or themes. The score is written in a key signature of one flat (B-flat) and a 2/4 time signature.

To present a detailed analysis of all the pitch connections derived from the collection above seems unnecessary in view of the fact that the pitch chart demonstrates clearly in most respects such connections. The following discussion will therefore survey the statements of theme A and mention one or two other points of interest within the movement.

It has already been stated that the first two statements of theme A present in their initial sonorities the two pairs of dyads that influence the entire structure of the movement. The initial and final notes of each statement reflect the semitone dyad (D $\flat$ -D in bars 704 - 707 and G $\sharp$ -G bar 726 - 733). Reference is made to the fifth dyads by extremes of register in the *Hauptstimmen* of both statements (E $\flat$  in bars 710 and 712 to B $\flat$  in bar 713; B in bars 726 and 728 to F $\sharp$  in bar 730). Other statements of theme A in bars 773 and 827 re-assert the original through pitch specificity. However, whilst the first of these is presented with the same pitch-specific harmony as the original, the second is not. Schoenberg creates this movement away from the original 'harmonic area' by employing the IHC pair whose semitone dyads occupy similar order positions, i.e. the initial pair. The use of P<sub>6</sub>/I<sub>11</sub> allows Schoenberg to present the statement at bar 827 in a differing harmonic context from the original whilst maintaining the control of this and the following statement in bar 831 by means of the common opening dyads D-D $\flat$  and A $\flat$ -G. Conversely, in bar 831, the thematic statement beginning on G, by virtue of its isomorphic partitioning which integrates it with the original, further removes itself from the original. The thematic statement at bar 807 on e $\flat$ " is also a transposition of the original. Its development is anticipated in the opening A theme, whose highest registral pitch (bar 710) is the same e $\flat$ ". This registral reference recurs in the third thematic statement of A in bar 780, where the d" and e $\flat$ " oscillate. The association continues through theme F in bar 793 to the initial d $\sharp$ "-e" in bar 797 and finally to e"-d $\sharp$ " in 806 in preparation for the theme in bar 807. The transition from the E $\flat$  version to the D $\flat$  version in bar 827 is effected by the long-range association of E-E $\flat$  through to bar 816 where the IHC set P<sub>2</sub>/I<sub>7</sub> presents both E-D $\sharp$  and D-C $\sharp$  dyads as segments of the row.

The final statement of A occurs at bar 889. The return here to the original pitch together with a full thematic statement as far as 895 are enough to constitute a recapitulation of the theme, a technique Schoenberg also uses in the final movements of Opp.7 and 30 to signify the beginning of the coda section of the movement. The initial harmonic sonority, however, is not the same as before. Whereas in the first instance a semitone dyad and a fifth dyad were employed, here both semitone dyads –D $\flat$ -D and A $\flat$ -G – provide a reference which is, in one sense, a summation of the entire work.

The summary of the transpositions and motivic progressions of the statements of theme A (shown in example 5.1.36) demonstrates a correlation between the level of development/transformation and the relative distances (in terms of perfect fifths) of transposition from the original. The further away from the home pitch of D $\flat$ , the more remote the motive becomes. The allusion to tonal procedures here is inviting (shown in the example in roman numerals).

Example 5.1.36 (Op.37/4)

Bar	initial pitch	Motivic Prog.	('tonal' degree)
704	D $\flat$		I
726	G $\sharp$	Rep(etition)	V
773	D $\flat$	Dev1	I
787	F $\sharp$	Trans(formation)	IV
807	E $\flat$	Trans.	II
827	D $\flat$	Dev1	I
831	G	Dev1	I $\flat$ (hexachordal partner)
889	D $\flat$	Rep.	I

The recapitulation of the theme (in bar 889) is preceded by a section littered with references to the pitch collection mentioned earlier. This culminates in a cadence in bar 888 constructed entirely of the collection. A further liquidation of theme B in bars 913 - 924 also culminates with the same dyadically-segmented collections. The initial sonority of the movement D $\flat$ -



-D-E $\flat$ -B $\flat$  is associated with the close of the work, reappearing at the beginning of bar 934, with the G-A $\flat$  dyad having the last word (Ex. 5.1.37).

Ex. 5.1.37 (Op.37/4)



The foregoing subsections discussing the pitch relationships inherent in the four Quartets demonstrate Schoenberg's concern with local and long-range connection of motives generated by the *Grundgestalt*. In all four Quartets, integration of local events was shown to be accomplished by invariant pitch motivic processes, whilst the forward motion was achieved by development of those motives. The broad structural framework of each work was also shown to be dependent upon relationships inherent in their individual *Grundgestalten*.

## 5.2 Motivic Processes: Rhythmic Relationships

### 5.2.1 Introduction

The elements that constitute a motive were outlined in Chapter 3 as its pitch configuration which comprises a series of intervals with a specific contour, and the rhythmic framework which gives the pitch configuration 'life'. It was also argued in Chapter 3 - and has been further reinforced thus far in Chapter 4 - that the Rhythmic and Contour elements of a motive interact to develop the *Urmotive* into subsequent motive-forms. It was shown that the preservation of either one of the elements allowed the alteration of the other to promote the development of the motive-form, and that in the majority of motivic developments the Contour element remained the stabilising connective feature. Consequently, much of the development of the motives relies on rhythmic variety and development. The following discussion gives examples of local and long-range rhythmic motivic development and invariance in the four Quartets.

### 5.2.2 Local Development

The initial rhythmic developments in the construction of the *Grundgestalt* of each Quartet were discussed in Chapter 2.5. The further development of the rhythmic features of each *Grundgestalt* in the opening stages of the respective works demonstrates Schoenberg's concern for the total integration of motive-forms as they unfold by the process of *developing variation* from the *Grundgestalten*. The initial rhythmic development in the Op.7 Quartet advances the state of two *Urmotive*. These two new motive-forms become the subsequent foundation for the expansion of the Principal Exposition material. In bar 7, on the second repetition of the rising Ab2 *Urmotiv*, the rhythmic feature is altered. The essential rhythm

is retained, but the addition of the tie and 'fill-in' notes alters the internal rhythm of the motive, eliminating the dotted figure. The tied g followed by the three semiquavers becomes the new pattern for the development of the descending *Urmotiv* in bar 3 (Ab4) which is established in bar 8/4 (Ex. 5.2.1). The two rhythmic patterns, that is, the original in bar 2 and the development in bars 7 and 8/4 - 9/1, form the rhythmic basis for the material of the opening 96 bars. In bars 61 - 63, the rhythmic acceleration of the thematic statement echoes the development of the initial *Urmotiv* into its subsequent rhythmic derivative, providing a succinct summary of the process, and of the relationship between them.

Ex. 5.2.1 (Op.7)



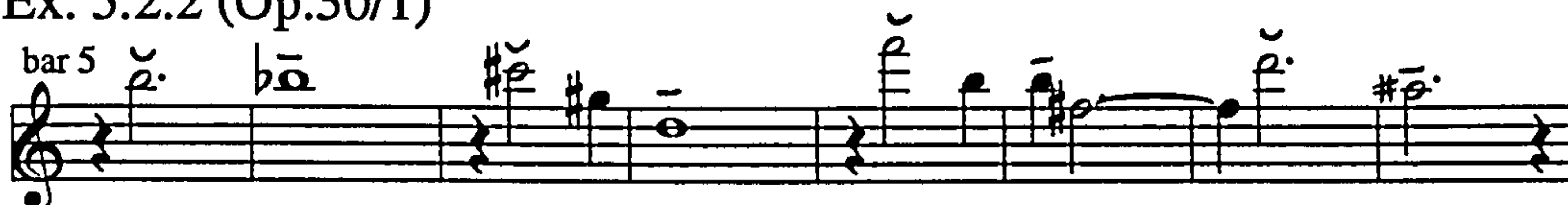
The dotted quaver/semiquaver figure in the opening of the Op.10 Quartet was shown to expand rhythmically over the first four bars, creating the thematic statement (see Chapter 2.5). The expansion of the rhythmic motive begins on the second beat of bar 3 and is repeated on the second beat of bar 4. Repetition in this way sustains the emphasis on the second beat of the bar. The octave transference of the B#/C also occurs on the second beats of bars 6 and 7, further emphasising the conflict between the rhythmic stress of the melodic line and the regular 3/4 strong/weak pattern in the accompaniment. The 'off-beat' stress and the expanded rhythmic



dotted figure become the rhythmic pattern for the second theme B at bar 12ff. (viola), reinforced by the cello rhythmic figure which also stresses the second beat. This is further developed at bars 43 - 44, where the upward moving semitone C#-D associates pitch specifically with the B theme in bars 12 - 13, with the addition of the expanded dotted rhythmic motive. In the following bar (b.45) the two-bar rhythmic pattern of bars 43 - 44 is further developed by an additional up-beat quaver. This becomes the rhythmic pattern for the restatement and development of the motive-form in bars 106ff. (cello and vln 1), and 194ff. (vln 2).

The repetition of the driving rhythmic figure at the opening of the Op.30 Quartet is a prime example of Schoenberg's use of rhythmic and pitch motivic invariance, which will be discussed below. The rhythmic profile of the opening thematic statement comprises an alternating weak/strong sequence of two-bar units that creates the eight-bar phrase (Ex. 5.2.2).

Ex. 5.2.2 (Op.30/1)



Ex. 5.2.3 (Op.30/1)  
bar 13 (cello)



The second thematic statement in bar 13ff. condenses the eight-bar phrase into 5 by reducing the last four bars of the original rhythmic pattern to two and the duration span between the two original four-bar phrases (Ex. 5.2.3). The alternating weak/strong rhythmic stress is also altered by the 'late arrival' of the initial G in bar 13. The strong/weak, weak/strong

pattern established in bars 13 - 16 recurs again in bar 20 at the start of the third statement (viola). The continuation of the phrase in bar 22, however, re-establishes the original rhythmic stress. Throughout the three statements to bar 25, only one rhythmic motive, Bb (bars 7 - 8), retains its identity and stress pattern. Schoenberg uses this rhythmic motive to effect the continuation in bar 25. The climactic point of the first section to bar 61 occurs in bar 51ff. . Here, the weak/strong rhythmic stress is reintroduced after a period of equal note values that defy the metric stress. The 5-beat structure of the motive dictates the phrase length of the accompanying parts, creating a 5-beat unit. The descending semitone dyad  $d''' - d\flat'''$ , together with the rhythmic stress, associates the motive with the opening *Hauptstimme* dyad in bars 5 - 6. The dyad recurs throughout the section, in bars 19 (vln 2), 25 (cello) and 27 (viola). Each statement retains the 3-beat initial note, but alters the length (considerably) of the second. In bar 43 the dyad, which is pitch-specifically associated with the opening, expands the initial note length to 4 beats, and reduces the second note to 3 beats. The return to the upper note sparks off a series of 3-beat notes creating a metric change to 3/4, with entries of the A *Urmotiv* in the accompaniment shrouding any reference to the previous metre. The absence of weak and strong stresses in the following bars enables the 2+3 weak/strong unit in bars 51 - 52 simultaneously to restore one imbalance (the lack of up- and down-beat stress) and create one of its own (the further alteration of the metre to 5/4). The rhythmic development in these first 61 bars, is generated by the imposition of increasingly irregular metrical patterns upon the regular phrase structure and ostinato figure of the *Grundgestalt*.

The three rhythmic motives that develop from the *Grundgestalt* of the Op.37 Quartet have been discussed in some depth in Chapters 2.5 and

4.2.4. However, some apposite comments can be made here regarding the local development of the rhythms, if only to reinforce what has already been said. The *Grundgestalt* itself presents metrically regular rhythms until bar four, where the tie on G delays the final dyad. The implication of the repeated notes (the A in bar 2, E in bar 3, and F# in bar 4), as prolonging the duration of a particular pitch, creates rhythmic motives that are not categorically stated as such (Ex. 5.2.4).

Ex. 5.2.4 (Op.37/1)



The latent dotted rhythm in bar 2, echoed in bar 4 by the *Nebenstimme*, is realised in bar 7, where it develops into an accompanimental figure. In bar 12, the cello imitation of the thematic statement in the same bar develops the rhythm further by the addition of an up beat semiquaver. This rhythmic figure is then taken up by the cello in its thematic statement in bar 19, and further developed in bars 32ff. . The rhythmic motive in bar 4 performs a dual function in the ensuing bars. In the second phrase (bar 6ff.) the initial three quaver up-beat develops from the second part of the rhythmic figure. This is reinforced by their common pitch goal of B (Ex. 5.2.5). In the third phrase the rhythmic motive becomes the model for the quaver statements, by repetition in bars 10/2 - 11/2 and by the omission of the initial quaver in bar 12.

Ex. 5.2.5 (Op.37/1)





It can be seen from the above examples, taken from the opening of each Quartet, that the *developing variation* of the rhythmic features of the *Urmotive* within the *Grundgestalt* contributes to the generation of foreground continuity and to the integration of motive-forms into a musical discourse.

### 5.2.3 Long-range Development

Whilst the local development of the rhythmic element of *Urmotive* and motive-forms tends to evolve through a gradual process of *developing variation*, the long-range development of a given motive-form implies a process of accumulative evolution - if indeed it is a 'process' at all - which results in the relationship between predecessor and successor often being rhythmically distant. One of the central propositions of this study is that motivic development and coherence are generated by the preservation and alteration of the two main elements that comprise the motive, namely, Contour and Rhythm. It was stated earlier in this chapter that the preservation of Contour was, to a great extent, a demonstrable feature of many of the motivic progressions in the four Quartets. Example 5.1.10, which demonstrated the invariance of contour in motive-forms from each of the Quartets, serves equally well to illustrate these comments (see pp.200-201). Preservation of Contour allows Schoenberg considerable freedom in generating a network of rhythmic motives which need not (or even cannot) be related to one another across the passage of time, since to the structural coherence through invariance is provided by the other elements constituting the motive-forms. At long-range, therefore, the function of rhythmic elements is neither developmental nor integrative but distinct and dissociative.

## CHAPTER SIX: RETROSPECT

### 6.1 Summary

The results of the analytical application of the motivic selection criteria and framework for the evaluation of motivic progressions were presented in Chapter 4.2. The Motivic Progression summaries drawn up for each work demonstrate the existence of a motivic network stemming from the *Grundgestalt Urmotive*, which provides both local and long-range integration of the thematic material that shapes the musical discourse. Schoenberg's maxim that the (Ur)motive is both the 'smallest common multiple' and the 'greatest common factor' in the generation of a musical discourse is thus borne out by the analysis. It was stated earlier that the Motivic Progressions framework is defined in a way that enables the exposure of local and long-range relationships between motive-forms by indicating the preservation or alteration of elements of the initial motive-form in the subsequent motive-forms. This aspect of motivic integration was termed 'relational' as opposed to 'continual' since it concerned the extant connection between motive-forms and not the process of *developing variation* whereby one evolved from the other. In other words, demonstration of the progressive stages of an *Urmotiv* and its subsequent motive-forms does not account for the foreground continuity in the music.

What the progressions do demonstrate with regard to Schoenberg's compositional tenets is that, irrespective of the style in which the *Grundgestalten* are presented, the 'working out' of *Urmotive* to provide the total thematic content of each individual work, and to ensure its total integration, remained central to his philosophy. How, precisely, that 'working out' is executed by means of *developing variation*, that is, what

processes of the *Grundgestalt Urmotive* generate the foreground continuity in his tonal and twelve-tone music, and how Schoenberg achieves this, was discussed in Chapter 5.

Consideration of the local development of intervallic and rhythmic constructs in the opening phrases of each Quartet revealed a similarity of process from work to work. It was shown that the unfolding of particular pitch shapes and invariance of particular intervals of the *Grundgestalt Urmotive* provided the preservation and development of foreground intervallic relationships. This, combined with the development and subsequent invariance of rhythmic features of the *Urmotive*, ensured both the continuous evolvment of the foreground, *developing variation*, and a co-existent retrospective consanguinity.

The longer-range motivic integration was shown to be dependent upon the interaction of intervallic, rhythmic, and contour features. Motive-forms that were developed by significant alterations to the rhythmic feature were shown to be more common than those which retained this element. It was concluded that the majority of motive-forms underwent significant rhythmic change, and that contour therefore played a greater part in the integration of motive-forms. Levels of development were thus dictated by the presence or absence of common intervallic relationships. In purely thematic terms, the incidence of development that retained both boundary and internal intervals as well as either Rhythm or Contour (i.e. Developed: Class 1) was higher in the Op.10 and Op.30 Quartets. The general distribution of Developed classes is more evenly spread in the Opp.7 and 37 Quartets than in the other two, whose distributions are similar. This demonstrates that Schoenberg's reliance on intervallic relationships for the integration of thematic material was increased during the period in which his style was undergoing change. This supposition is reinforced by the



increase in Transformation in the Op.30 Quartet, a process which relies entirely on preservation of intervallic relationships. The final consideration of pitch processes in the four Quartets concerned the relationship between the *Grundgestalt Urmotive* and the pitch strategies that articulated formal aspects of the works. It was demonstrated that in all four Quartets the unfolding of pitch relationships within the *Grundgestalt* extended across the whole work, generating a framework of referential intervals and intervallic relationships, rationalising thematic development and overall tonal structure. It is in this final respect, that is, formal and thematic control by pitch hierarchies constructed from the *Grundgestalt*, that Schoenberg's compositional process of the *developing variation* of a *Grundgestalt* demonstrates a consistent adherence to his beliefs.

## 6.2 Conclusion

This study provides a perspective on Schoenberg's music that has hitherto received little attention. Construction of theoretical systems and other attempts to make sense of the music of his atonal and twelve-tone periods have dominated academic research without any attempt to consider the whole gamut of Schoenberg's work in the sense that he himself had wished, namely that

I have not discontinued composing in the same style and in the same way as at the very beginning. The difference is only that I do it better now than before; it is more concentrated, more mature.<sup>1</sup>

It may be that it has been taken for granted for all these years that

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<sup>1</sup> Schoenberg, *Style and Idea*, Ed. L. Stein (London 1975), p.30

Schoenberg was doing as he stated, and that the need to express this notion was superseded by prioritising the understanding of the 'new'. The contribution of this study to the understanding of the 'new' is woven into the perception of the 'old' and the 'new' from an hitherto unconsidered dimension, stalwartly maintained by Schoenberg as fundamental to the very fabric of composition, namely the processes and progressions of the motive, or more specifically, the *Urmotive* of the *Grundgestalt*. It seems appropriate (and almost obvious) that the compositional concepts coined by Schoenberg in analyses of his great predecessors, concepts about which Schoenberg spoke with differing degrees of explanation and depth, should finally be applied to his own music, in a manner which attempts to determine whether his statement was indeed a tenable one.

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